Latitude NVMS 3.0

Installation Manual

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Preface

Congratulations on your purchase of Latitude NVMS. This manual will guide you through the installation and configuration of the various components of the system.

Who Should Read This Manual?

This Manual is intended for system integrators and advanced end users who are setting up a security solution incorporating Latitude software and DVTel hardware (encoders/decoders, IP cameras, etc.). A familiarity with basic network concepts and the Windows operating system is required.

The material presented in this manual is also covered in DVTel certification training courses.

About This Manual

The Latitude Installation Manual is broken up into six main sections:

1. Preface. The section you are now reading.
2. System Overview. Contains general information about Latitude NVMS including sample network diagrams and hardware and software requirements.
3. Basic Installation. This section offers a brief overview of DVTel hardware installation as well as instructions for installing Latitude.
4. Basic Configuration. Provides instructions for configuring viewing and recording qualities, sites, cameras, users, schedules, PTZ devices, camera sequence and layouts.
5. Advanced Topics. Covers additional installation and configuration topics including fail-over archiving, backup and restore, alarm management, motion detection and maps.
6. Appendix.

Additional Resources and Support

The Manuals folder of the *Latitude NVMS CD* contains technical documentation for many of DVTel's products, including the 7500 and 7600 Series of Encoders/Decoders. Additional information can also be found in the Support section of the DVTel website: www.dvtel.com.

DVTel Technical Support can be reached by phone at **(888) DVTEL 77**, Monday through Friday, 8 AM – 6 PM. Questions may also be sent to support@dvtel.com.

System Overview

This section contains general information about Latitude, including an overview of the main applications as well as system requirement specifications.

About Latitude NVMS

Latitude is a network-based video monitoring and recording system. It provides the features of a Matrix Switch, a Multiplexer, and a Digital Video Recorder (DVR) in one easily scalable and highly customizable surveillance solution. Further customization can be realized using macros and the Latitude Software Development Kit (SDK).

Latitude applications can be categorized into two basic groups: server applications and client applications.

Server Applications

The majority of Latitude's server applications take the form of Windows Services, which are run by a dedicated Latitude Windows User created when the programs are first installed. Latitude's server applications include the **Directory**, which maintains system settings; one or more **Media Archivers**, which are charged with communication with encoders/decoders as well as with the recording of video; and the **Virtual Matrix**, which implements features such as Sequences, Macros and PTZ Keyboard support.

The only server application with which users directly interact is the Resource Administration Tool (RAT), which is used to import licenses and configure certain system-level parameters such as storage disks and Fail-Over Media Archivers.

Client Applications

Latitude has three main client applications, ControlCenter, MediaCenter and AdminCenter, as well as several client tools, such as the Macro Editor and Report Viewer, a new addition to the latest version of the software.

ControlCenter is the successor of the Monitor in NVRS. It is the application used to view live video, run camera sequences and display and respond to alarms. Other features include Instant Replay, Digital Zoom and PTZ Control. PTZ Cameras can be manipulated in three different ways with ControlCenter: via on-screen controls, using PC keyboards, and with PTZ keyboards connected to Latitude either through encoders/decoders or client stations.

MediaCenter is the successor of NVRS 2.5's Archive Player. It is used for playback of archived video and features a variety of search mechanism, including search by date and time, site, camera, motion, bookmarks and alarms. Among the major enhancements in this version of MediaCenter is a significantly more powerful synchronous playback capability.

AdminCenter, the successor of NVRS's Config Tool, has been updated to support the configuration of the new features of Latitude. Many new entities have been added to those from NVRS 2.5, including Alarms, Hardware Matrices, Camera Groups (for use only with alarms), and User Groups. Latitude's security model has been revamped to allow for much greater differentiation between users.

Sample System Diagram

A large variety of network topologies can be used with Latitude. The choice of a particular one is often based on a variety of considerations, including the number of cameras connected to the system, the physical geography of the areas under surveillance, their cable infrastructure and whether or not Latitude is integrated with a larger IT system.

The diagram below illustrates one typical system setup in which a single server, a few client workstations, and multiple encoders/decoders reside on a dedicated network.

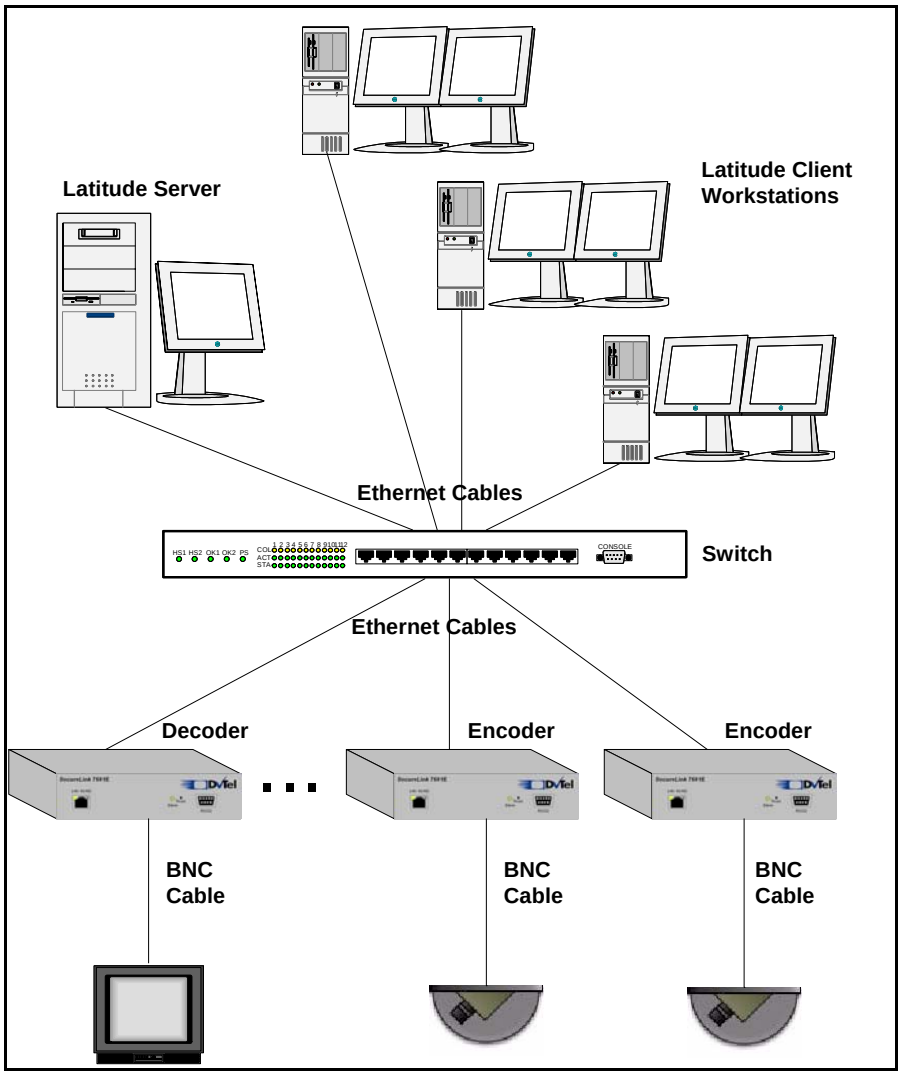

Figure 1-1 - A Single Server Latitude System

Hardware Requirements

This section details the requirements for hardware used with Latitude. DVTel recommends that you review these specifications prior to beginning the installation of Latitude.

Supported Encoders and Decoders

All DVTel encoders and decoders, including 7500, 7600 and 6500 Series units, can be used with Latitude software. Please make sure, however, that the units have a recent version of firmware installed. If you are upgrading from NVRS 2.5, you may want to use the Config Tool to update encoder/decoder firmware prior to beginning the Latitude installation. The latest firmware files can be downloaded from the Support section of DVTel's website.

If you are unsure whether your units' firmware should be updated or not, contact DVTel Technical Support.

Server and Client Requirements

The following table details the ***minimum*** hardware requirements for client and server computers. For systems with 16 cameras or less, a single machine may be used as both the client and server. In that case, use the client specification, except for Hard Drive Space.

	Latitude Server Requirements	**Latitude Client Requirements**
CPU	Intel® Pentium® 4 Processor, 2.8 GHz, 1 MB/800 MHz FSB.	Intel® Pentium® 4 Processor, 3.2 GHz, 1 MB/800 MHz FSB.
Memory	1GB, DDR333 SDRAM.	1GB, DDR400 SDRAM.
Hard Drive Space	40 GB (7200 RPM) dedicated drive for the Operating System and Latitude Applications; Internal or external storage for archived video. ***All drives should be formatted to NTFS.***	40 GB (7200 RPM) for Operating System and Latitude Applications. ***All drives should be formatted to NTFS.***
Network Interface Card (NIC)	10/100/1000 Mb.	10/100/1000 Mb.
Video Card	Standard video display adapter.	Dual Head 128 MB video card (nVidia or ATI)
Other	CD-ROM; Floppy drive.	48X/32X/48X CD-RW; Floppy drive.

Software Requirements

This section details the requirements for software used with Latitude. DVTel recommends that you review these specifications prior to beginning the installation of Latitude.

Supported Operating Systems

Latitude applications require Microsoft Windows XP Professional, SP1; Windows 2000, SP4; Windows 2000 Server, Standard Edition; or Windows 20003 Server, Standard Edition. **Always check with DVTel Technical Support prior to installing new Windows service packs**.

Windows Service Packs and other critical updates can be downloaded from Microsoft's website by choosing ***Windows Update*** in the ***Tools*** menu of Internet Explorer. Once you have been directed to the appropriate page, follow the on-screen instructions.

Additionally, the latest version of DirectX (currently 9.0b) is required for some of the client applications. To find out which version of DirectX is installed on your computer, choose ***Run...*** from the ***Start*** menu and run the command **`dxdiag`**. This will launch the DirectX Diagnostic Tool. The software version is listed under the ***System*** tab.

You can download DirectX from http://www.microsoft.com/windows/directx.

Client Requirements for Web Access

The web version of Latitude's client applications requires Windows XP/2000 and Internet Explorer 6, with its most recent service pack, which can be downloaded in the same way as the Windows service packs.

Additionally, the web applications require that the latest version of Java be installed on the computer accessing Latitude. Java can be downloaded from http://java.sun.com/getjava.

Since the web applications use ActiveX, you may need to change certain Internet Explorer security settings. To do so, launch Explorer and go to ***Internet Options…*** in the ***Tools*** menu. Under the Security tab, click the button labeled ***Custom Level…*** and make sure all ActiveX related options are set to ***Enable*** or ***Prompt***, based on your security preferences.

Network Planning

Latitude's nature as an network-based system means that network infrastructure is a critical factor in determining system capabilities and performance. Some of the network parameters to which special attention should be paid are:

- **Size and Scope.** Does Latitude reside on a Local or Wide Area Network? What is the connection type between the different sites (if any)? Is access via the Internet required?

- **Type of Network Equipment.** Are switches and routers managed or unmanaged? Do they support Multicasting? What is the total bandwidth allowed (100 Mbps, 1 Gbps, etc.)?
- **Other Network Users**. Does Latitude reside on a dedicated or corporate network? What is the percentage of the network's bandwidth "earmarked" for use by the surveillance system? Are there special security requirements associated with any of the other network users (if any)?
- **Wireless Considerations**. Is any part of the network wireless? If so, does the wireless router support multicasting? (with the exception of very high-end routers, the answer is usually no).
- **E-mail Requirements**. Do the system's users wish to use the e-mail notification capabilities of Latitude? (If this is the case, the system must have access to a SMTP server).

For most systems, many of these issues are not applicable. Nevertheless, it is important to consult with a Network Administrator in determining system architecture.

Basic Installation

This section covers the procedures for installing the core features of Latitude. Also included is a brief overview of Encoder/Decoder installation.

Hardware Installation

In order to configure encoders and decoders, you will need to assign a unique IP address to each unit. In the case of a dedicated surveillance network, DVTel recommends using IP addresses and Gateways of the form **192.168.X.Y**, and a fixed Subnet of **255.255.255.0**.

The computer used to configure encoders/decoders must reside on the LAN on which the units will. In other words, if you would like to assign your units IP addresses of the form **A.B.C.X**, where **A**, **B** and **C** are constant over all units, your computer's IP address must be of the form **A.B.C.X** as well.

For instructions on changing your computer's IP address, consult your Operating System's documentation or your Network Administrator.

Always consult your Network Administrator to make sure that the IP addresses you assign to encoders and decoders do not conflict with those of other devices on the network, particularly when installing units on a non-dedicated network.

Installing Encoders and Decoders

Following is an outline of the procedure for installing an encoders or decoders. For more detailed information and troubleshooting tips, please consult the units' installation manuals.

1. Connect the unit to its Terminal Block and power supply. Plug the power supply into AC power to turn on the unit.
2. Connect the encoder/decoder to your computer using one of the following methods:
   - Through the devices' serial ports, with a 9-pin serial cable (DB9).
   - Through the devices' RJ45 network ports, with a **crossed** Ethernet cable.
   - Through the devices' RJ45 ports and a switch, with two **straight-through** Ethernet cables. *This is usually the most convenient method.*
3. Connect the BNC port of your encoder or decoder to, respectively, a camera or analog monitor. *This step may instead be performed after unit installation is completed.*
4. Insert the ***Latitude NVMS Installation CD*** into your CD-ROM drive. Explore the CD (using Windows Explorer) and copy ***Device Configurator*** to your desktop.
5. Double click ***Device Configurator***, enter the password **`dvtel`**, and click ***Submit***.
6. Click the ***Program Options*** button and confirm that the following settings are correct:
   - The PC's IP address should correspond to the same LAN as the one in which you would like to install your encoders/decoders.
   - ***Detect All Units on LAN*** is checked on.
   - The ***VSIP Port*** is set to ***5510***. To reset the VSIP port, click ***Default***

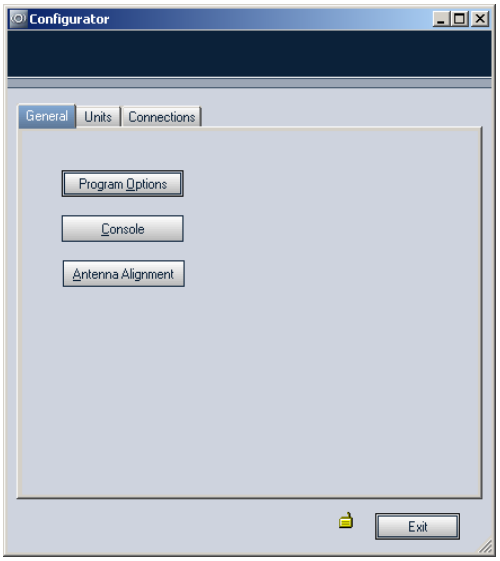

Figure 2-1 - Device Configurator

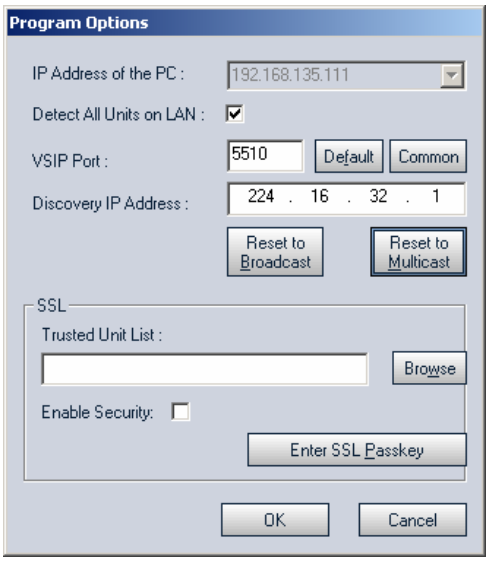

Figure 2-2 – Program Options

7. Click the ***Units*** tab and the ***Discover*** button. Wait for a unit of type "Unknown" to be discovered and double-click it. If a ***Reconfigure unit?*** dialogue box appears, click ***Yes***.

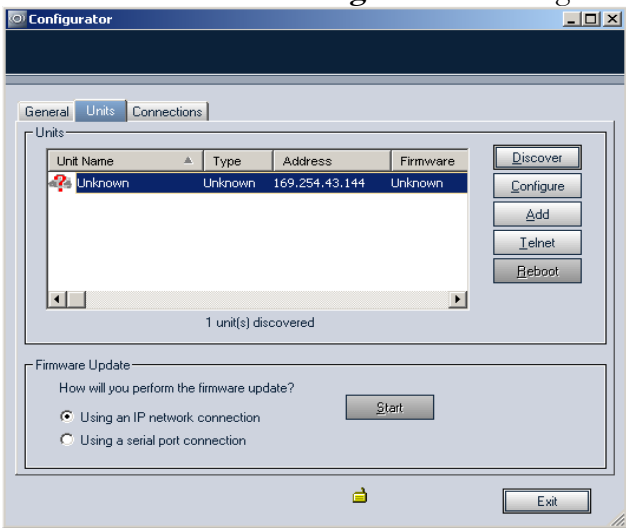

Figure 2-3 – Unit Discovery

8. Enter the ***IP Address***, ***Subnet*** and ***Gateway*** that you would like to assign the unit and click OK. **Do not use a DHCP server to assign addresses to encoders/decoders.**

- **For future troubleshooting purposes, DVTel recommends labeling units with their IP address**.
- **For instructions on batch encoders/decoders configuration, refer to the *7500 Series Installation Manual*.**

Software Installation

This section contains instructions for installing Latitude server and client software. If you currently have an NVRS system, please refer to the *Latitude NVMS Upgrade Guide* instead.

Server Installation

Please note: If Windows Internet Information Services (IIS) is installed on your computer, the InstallShield may offer to create a Virtual Directory for you. **A Virtual Directory is required for Latitude's web access functionality only**. If you would like to use this functionality and IIS is *not* installed on your machine, install IIS before continuing with the Latitude server installation (you will need your operating system's installation CD or access to the Microsoft's support website). Refer to Appendix B for instructions on installing IIS.

1. Insert the *Latitude NVMS CD* into the CD-ROM drive of your server. If the installer is not launched automatically, explore the CD and double-click the **`setup`** file.
2. Click ***Install Latitude Server***. Follow the on-screen prompts to accept the software license agreement and default destination folder for the server applications.
3. Choose your ***Setup Type*** and click ***Next***. The type of setup you require depends on your system architecture purchased features. **Installing features not covered by your license may result in numerous run-time error messages.**

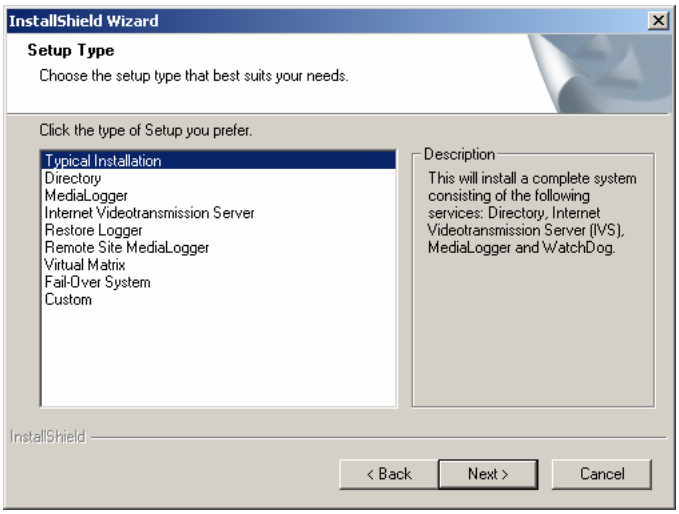

Figure 2-4 – Server Installation Type

4. Choose ***Install a new database server*** to install a default MSDE database for the Archiver. If you would like to use an existing MSSQL database, choose the ***Use an existing database*** option instead and enter the database's location.
5. When the Resource Administration Tool (RAT) launches, click the ***Copy*** button to the right of the ***Validation key*** field and exit the application. For easy access in the future, you may want to paste it to a text file and save the file.
6. When prompted, choose whether you would like to restart your computer. If your machine has Internet access, you may want to proceed to the next section right away.

7. If your system design calls for additional Media Archivers (including Fail-Over and Redundant Archivers) refer to the advanced topics section for additional instructions.

Obtaining Your License Key

1. Connect to the Internet, go to http://www.dvtel.com/support_licenses.asp, and click the link for the appropriate version of your software.
2. Enter the ***System ID*** (*with dashes*) and ***Password*** provided with your Latitude package and click ***Go***.
3. Click the link labeled with your systems' name.
4. Type in or paste your validation key (from the RAT) into the ***Validation Key*** field. In the bottom of the page, enter the e-mail address to which you would like your License Key sent. Click the ***Get License*** button.
5. Follow the instructions provided in the e-mail sent by the licensing system to import your license into the RAT.
6. Restart your computer for the changes to take effect.
7. Repeat steps 1-6 for each machine on which you installed Latitude server components.

Client Installation

1. Insert the *Latitude NVMS CD* into the CD-ROM drive of your client PC. If the installer is not launched automatically, explore the CD and double-click the `setup` file.
2. Click ***Install Latitude Client***. Follow the on-screen prompts to accept the software license agreement and default destination folder for the server applications.
3. Choose your ***Setup Type*** and click Next. ***Typical*** installation is appropriate for most users, but if you will be using the Macro Editor or Report Viewer, use ***Custom*** install and checkmark the corresponding options.

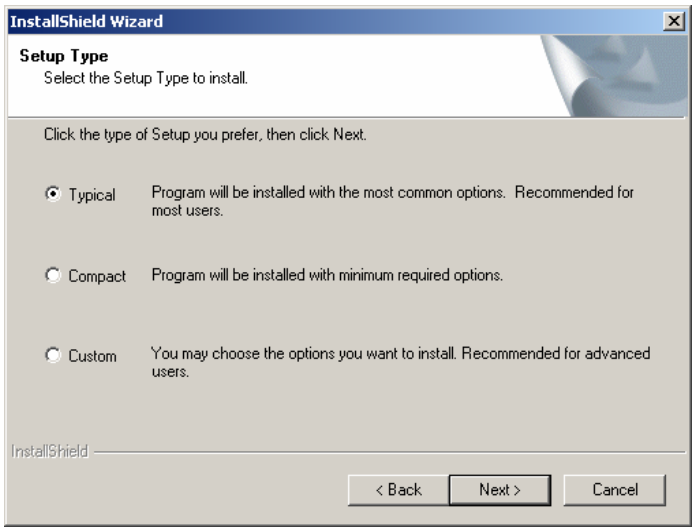
InstallShield Wizard
Setup Type
Select the Setup Type to install.
Click the type of Setup you prefer, then click Next.
Typical
Program will be installed with the most common options. Recommended for most users.
Compact
Program will be installed with minimum required options.
Custom
You may choose the options you want to install. Recommended for advanced users.
InstallShield
< Back
Next >
Cancel

Figure 2-5 – Client Installation Type

4. Click ***Finish*** once the installation is completed.
5. Reboot your computer and repeat steps 1-4 for each machine on which you would like to install client applications.

Defining the Archiving Drives

1. Launch the Resource Administration Tool on the NVMS server. Click ***Archiver*** in the ***Resource*** tree and then the ***Archiving*** tab.
2. Checkmark the disks to which you would like to archive video. Set the minimum free space to at least 1000 MB per disk. **Do not archive to the disk on which either the operating system or Latitude reside.** Click ***Apply***. When prompted to restart the Archiving service, click ***Yes***.

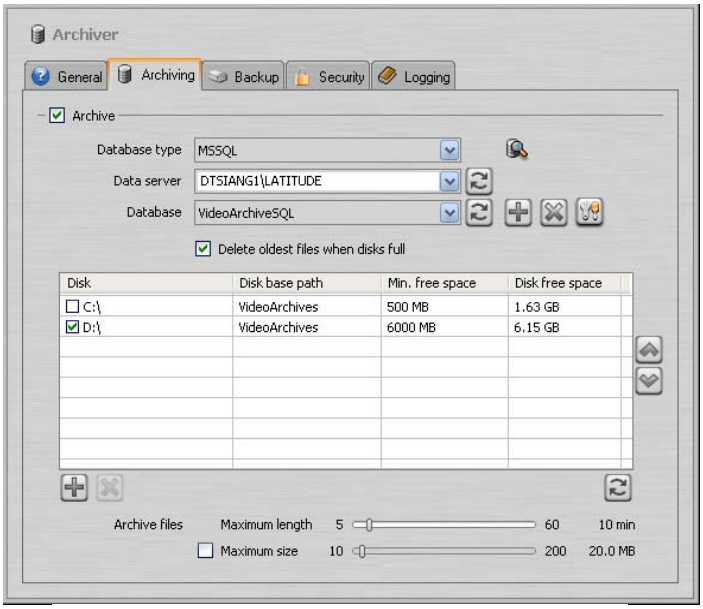

Figure 2-6 – Defining the Archiving Drives

3. If your system has more than one Archiver, repeat steps 1-2 on each archiving server.

Synchronizing Time Across Latitude

DVTel strongly recommends that you synchronize time across all computers running Latitude applications. Please refer to Appendix A for detailed instructions on how to do so. Note that in certain networks, particularly ones that have domain controllers, time synchronization may be done automatically. In that case, no settings changes are required.

Launching a Latitude Client Application for the First Time

1. Go to ***Start > Programs > DVTel Latitude 3.0*** and choose an application to launch.
2. Type **`Admin`** in the ***Username*** field and leave the ***Password*** field blank.
3. Click the arrow shaped button in the bottom left corner of the ***Connect*** dialogue box.
4. Enter the computer name or IP address of the server in which you installed the Latitude **Directory**. Note that you must use an IP address if the client connects to the Directory server over the Internet (rather than a LAN).
5. Click ***OK***.

Basic Configuration

This section contains instructions for configuring the most commonly used Latitude entities, including cameras, users, schedules, PTZ equipment, sequences and layouts. With the exception of layout creation, all Latitude configuration is performed using the AdminCenter. The image below shows the various parts of the application's workspace.

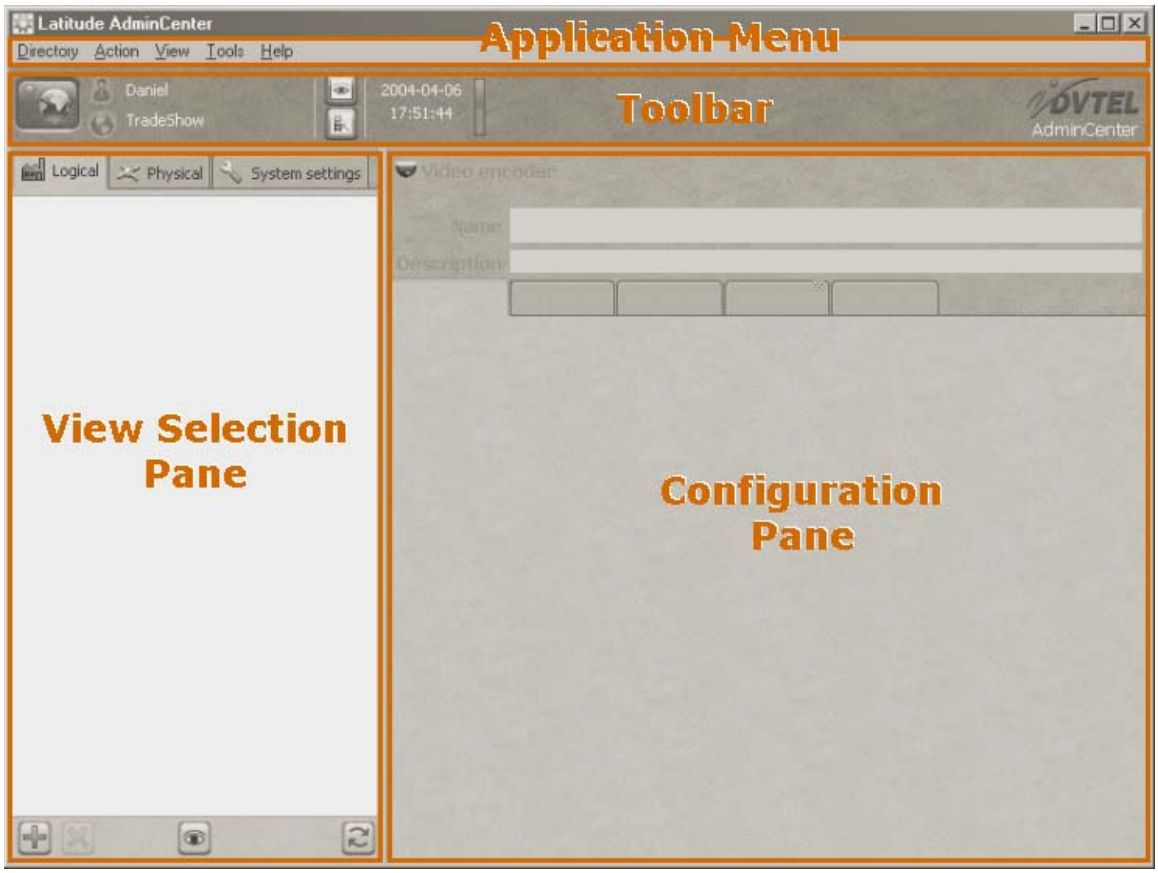

Figure 3-1 - The AdminCenter

The View Selection Pane is used to navigate the various Latitude entities and choose which one to review or configure. Entities are organized in the form of a directory tree (much like files are organized in Windows Explorer). The root of the tree, symbolized by a globe icon, represents the complete Latitude system.

The tabs at the top of the View Selection Pane allow users to switch between three views of the Latitude system: the ***Logical*** view presents entities based on their physical location (i.e. their sites); the ***Physical*** view presents entities based on their network location (i.e. the computers on which they reside); lastly, the ***System Settings*** view presents entities grouped by type, rather than location.

The Configuration Pane is used to view entities' settings and alter them. The tabs on the top of the pane vary based on the type of entity selected from the View Selection Pane.

Cameras, Analog Monitors and Sites

When AdminCenter is launched for the first time, network devices recognized by the system are listed under the globe icon in the ***Logical*** view of the System View Pane. Cameras are represented by dome icons, while analog monitor are represented by monitor icons.

Configuring Cameras

1. In the System View Pane (***Logical*** view), click a camera that has not been configured. A screen similar to the following should appear in the Configuration Pane:

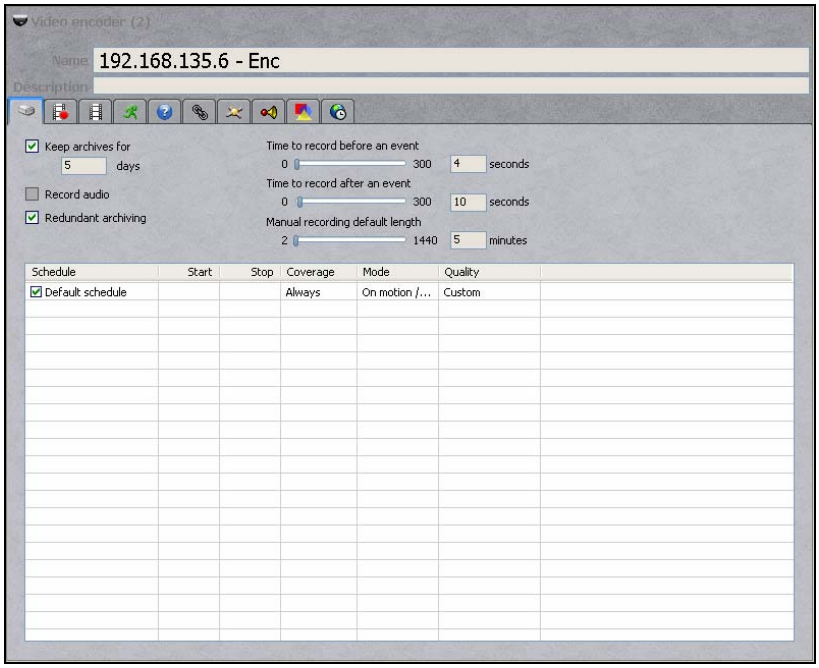

Figure 3-2 – The Camera Configuration Pane

2. In the Name field, erase the IP address and give your camera a meaningful name (e.g. *N. Exit PTZ*). Enter a further description if you wish. When asked whether you would like to rename all linked applications, click ***No***.
3. In the ***Keep archives for*** field, enter the number of days that you would like video from the camera kept (uncheck the field if archiving is not required). Checkmark the ***Record audio*** box if applicable. Change the rest of the non-schedule parameters if you wish (many users finds it more convenient to do this only after additional entities have been configured) and click ***Apply changes***.
4. Click the second tab (***Recording quality***). Choose whether default recording quality should be based on the active recording schedule or live display settings.
5. If you would like the recording quality to change based on motion, click the ***Recording quality on motion detection*** box and choose one of the options from the ***Quality*** pull-down menu. To specify quality parameters individually, choose ***Custom*** and enter the appropriate values. Note that many users prefer to hold off on this step until after motion detection has been configured.

6. Repeat step 4 for quality change on manual recording, if required. Click the third tab (***Display quality***) and choose ***Yes*** when prompted whether to apply changes.
7. Based on your requirements and network capabilities, configure **viewing** stream quality:
    - Choose the ***Video data format*** and ***Quality*** from their drop-down menus.
    - If ***Custom*** is chosen for quality, enter the various quality parameters manually.
    - Set ***bit rate control*** and ***Input filter mode***. In most cases, DVTel recommends that you checkmark the former and choose ***Medium*** for the latter.
    - Click ***Apply changes***.
    - Note that different qualities can be set for different dates/times. If you wish to do so, return to the step after you create additional **coverages**.
8. Click the second to last tab from the left (***Attributes***). Make sure ***Analog format*** is set to the correct option for your camera (***PAL*** or ***NTSC***). Click the Live video button and use the displayed stream to change ***Brightness***, ***Contrast***, ***Hue*** or ***Saturation***. Click ***Apply changes***.
9. Repeat steps 1-8 until all of your cameras have been configured.

Configuring Analog Monitors

1. In the System View Pane (***Logical*** view), click a monitor that has not been configured.
2. In the ***Name*** field, erase the IP address and give the monitor a meaningful name. Enter a description if you wish. When asked whether you would like all linked applications to be renamed, click ***No***.
3. Click the ***Attributes*** tab and choose the monitor's ***Analog format*** from the drop-down menu. Click ***Apply changes***.
4. Repeat step 1-3 until all your analog monitors have been configured.

Creating Sites

1. Right click anywhere in the System View Pane and choose ***Create > Site***. To create a sub-site, right click on the super-site before choosing ***Create > Site***.
2. Enter a name for the site (e.g. *Exits*) in the ***Name*** field. Add a description if you wish.
3. In the System View Pane, drag and drop into the site the cameras and monitors you would like to include in it. When asked whether to move all linked devices, click ***Yes***.
4. If you would like to add a map (or any other html page) to the site, click the ***Maps*** tab and enter the URL for the page. Click ***Apply changes***.
5. Repeat steps 1-4 until all cameras and monitors have been placed in sites.

Note that only administrative users can view video from cameras, or with monitors, which are left in the root directory.

Coverages and Archiving Schedules

Coverage is a new entity type in the current Latitude version. Although the coverage concept existed in earlier versions of the software as well, it is now independent from the schedule entity. Since each schedule is associated with a coverage (i.e. a recurring/non-recurring span of time), a schedule can only be configured once the coverage it employs has been created.

Latitude comes with a default coverage, ***Always***, and a default schedule, ***Default schedule***. ***Always***, as its name suggests, covers all time. ***Default schedule*** use ***Always*** as its coverage. ***Always*** and ***Default schedule*** cannot be deleted.

Note that a camera can be associated with multiple schedules. In case of conflict, the choice of schedule depends on its coverage's *priority*. See the Latitude User Manual for more details.

Creating Coverages

1. Right click anywhere in the System View Pane and choose ***Create > Coverage***.

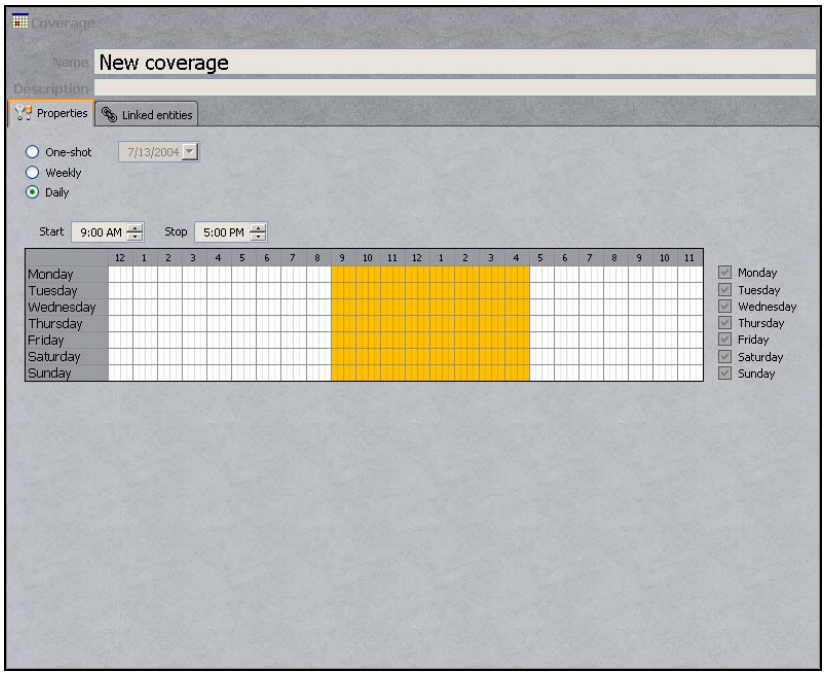

Figure 3-3 – The Coverage Configuration Pane

2. Enter a name for the coverage (e.g. *Off Hours*) in the ***Name*** field. Add a description if you wish.
3. Click the radio button corresponding to the coverage you would like to create: ***One-shot***, ***Weekly***, or ***Daily***.
4. Enter the following parameters, then click ***Apply changes***.
   - For a one-shot coverage: choose a date from the ***One-shot*** drop-down menu and enter a time range using the ***Start*** and ***Stop*** fields or with the timeline.
   - For a weekly coverage: enter a time range using the ***Start*** and ***Stop*** fields or with the timeline and checkmark the days in which the coverage should apply.
   - For a daily schedule: enter a time range using the ***Start*** and ***Stop*** fields or with the timeline.
5. Repeat steps 1-4 to create additional coverages.

Creating Archiving Schedules

1. Right click anywhere in the System View Pane and choose ***Create > Schedule > Archiving Schedule***.

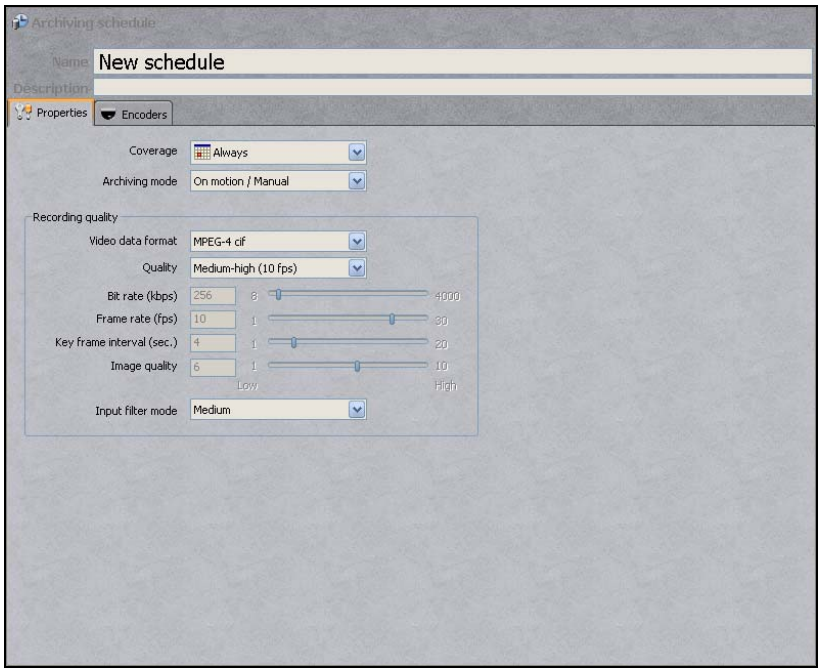

Figure 3-4 – The Archiving Schedule Configuration Pane

2. Enter a name for the schedule (e.g. *Off Hours*) in the ***Name*** field. Add a ***Description*** if you wish.
3. From the ***Coverage*** drop-down menu, choose a coverage to associate with the schedule. Similarly, choose an ***Archiving mode*** for the schedule to employ.
4. Based on your requirements and network/storage capabilities, configure the **recording** stream quality:
   - Choose the ***Video data format*** and ***Quality*** from their drop-down menus.
   - If ***Custom*** is chosen for quality, enter the various quality parameters manually.
   - Choose an ***Input filter mode***. In most cases, DVTel recommends ***Medium***.
   - Note that this configuration will only bed used if the pertinent camera is set to record based on schedule.
5. Click the ***Encoders*** tab. When asked whether to apply changes, choose ***Yes***.
6. Checkmark the cameras whose video streams you would like archived according to the schedule. Click the ***+*** sign to see the contents of a Site. You can checkmark an entire site to apply a schedule to all cameras that belong to it. Click ***Apply changes***.
7. Repeat steps 1-6 to create additional schedules.

Camera Sequences

Cameras sequences use Latitude's *Virtual Matrix* component to allow video from multiple cameras to be rotated in a single tile in the ControlCenter or in an analog monitor.

Creating Sequences

1. Right click anywhere in the System View Pane and choose ***Create > Camera Sequence***.

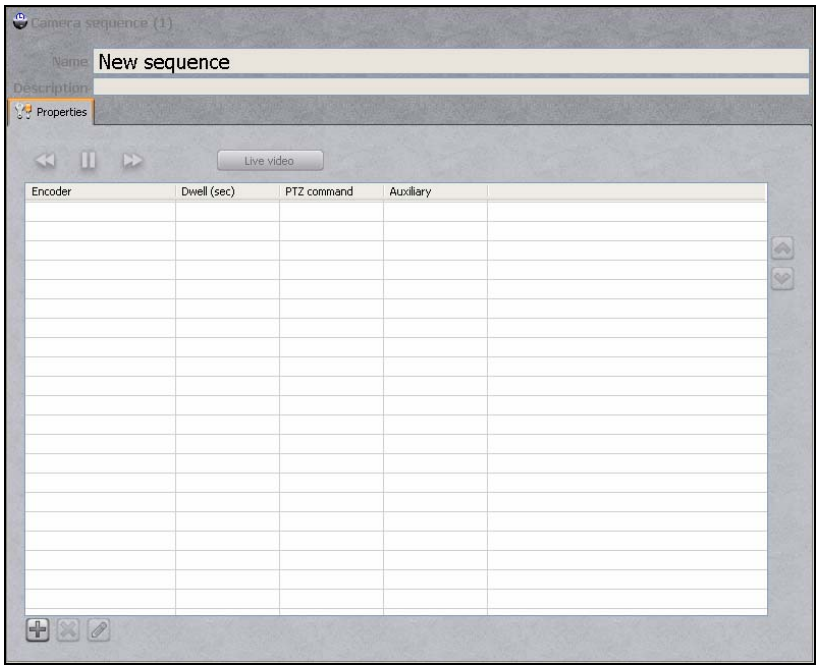

Figure 3-5 – The Camera Sequence Configuration Pane

2. Enter a name for the sequence in the ***Name*** field. Add a ***Description*** if you wish.
3. To add a camera to the sequence, click the ***+*** button, choose a camera from the ***Encoder*** drop-down menu and enter a dwell time in seconds (once PTZ presets and patterns have been configured, you can add them as well). Click ***OK***.
4. Repeat the previous step as necessary to add additional cameras to the sequence. Click ***Apply changes*** when done.
5. Repeat steps 1-5 to create additional sequences.
6. Switch to the ***Logical*** view of the System View Pane and drag and drop all sequences into sites.

ControlCenter Layouts

Tile layouts are the only entities configured in ControlCenter rather than AdminCenter. The image below shows the various parts of the ControlCenter's workspace.

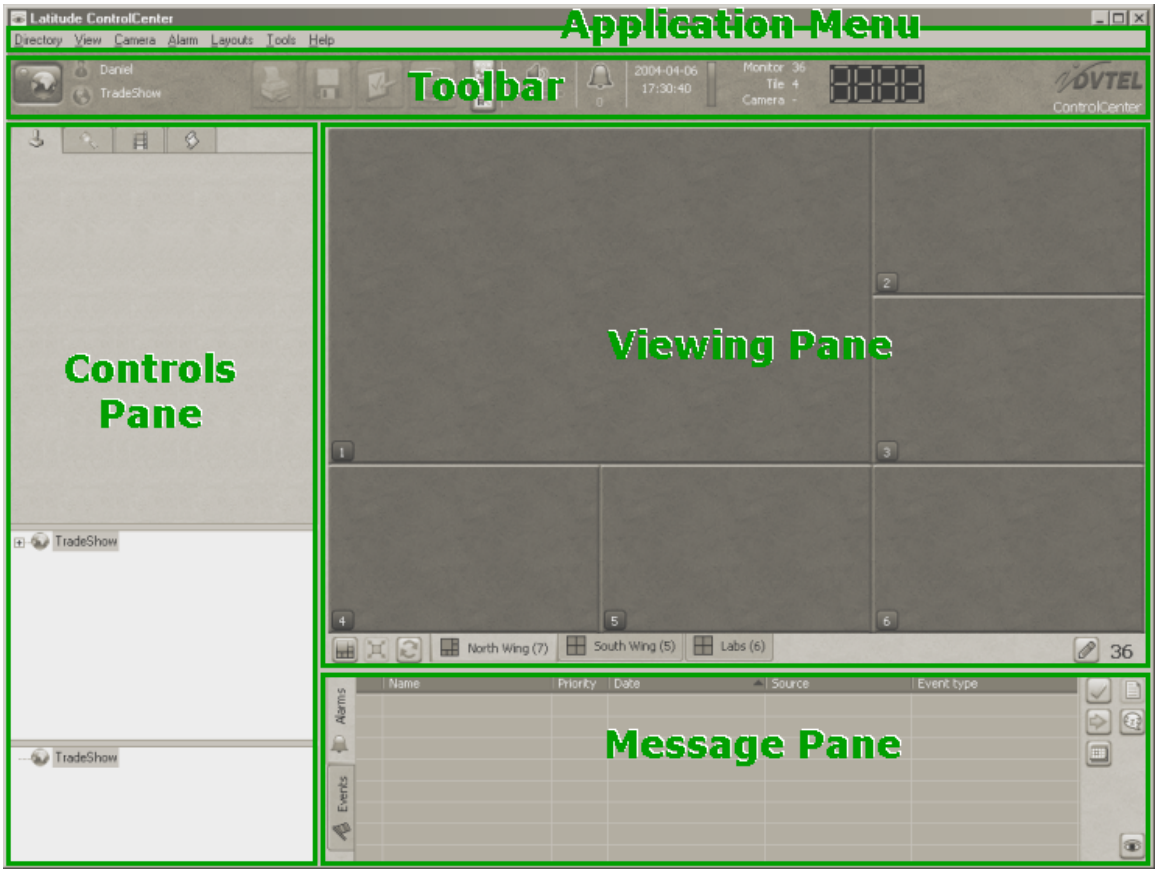

Figure 3-6 – The ControlCenter Workspace

Creating Layouts

1. Launch ControlCenter. The application can be launched directly from AdminCenter by clicking the eye button in the Toolbar.
2. Click the pencil button in the bottom right of the Viewing Pane to enter the editing mode.
3. To change the tile pattern (i.e. the number, size and positions of tiles), click the ***Change pattern*** button on the bottom left corner of the Viewing Pane and choose a pattern.
4. From the middle section of the Controls Pane, drag and drop cameras and/or sequences into the various tiles. To display a map or html page associated with a site, drag and drop the site itself.
5. To arm tiles for alarms, click the number buttons in the bottom left corner of the tiles (some users prefer to hold off on this step until after alarms have been configured).
6. To rename the layout, click the ***ABC*** button in the bottom of the Viewing Pane, enter a new name, and click OK.
7. Click the "disk" button to save the layout. Note that layouts must be saved within sites (rather than in the root directory).
8. To create a new layout, click the ***+*** button in the bottom of the Viewing Pane, enter a name for the new layout, and click ***Insert***. To configure the layout, perform steps 3-7.
9. Repeat the previous step until there are no more layouts you would like to create.

Users and User Groups

Latitude's user model has been significantly enhanced from NVRS 2.5. It now supports more customized permissions and privileges, and allows users with similar attributes to be organized in *user groups*. Users can belong to multiple user groups, and groups can be nested. Permissions, which are associated with sites, and privileges, which regulate access to system features, are inherited by users from user groups.

Creating Users

1. Right click anywhere in the System View Pane (in AdminCenter) and choose ***Create > User***.

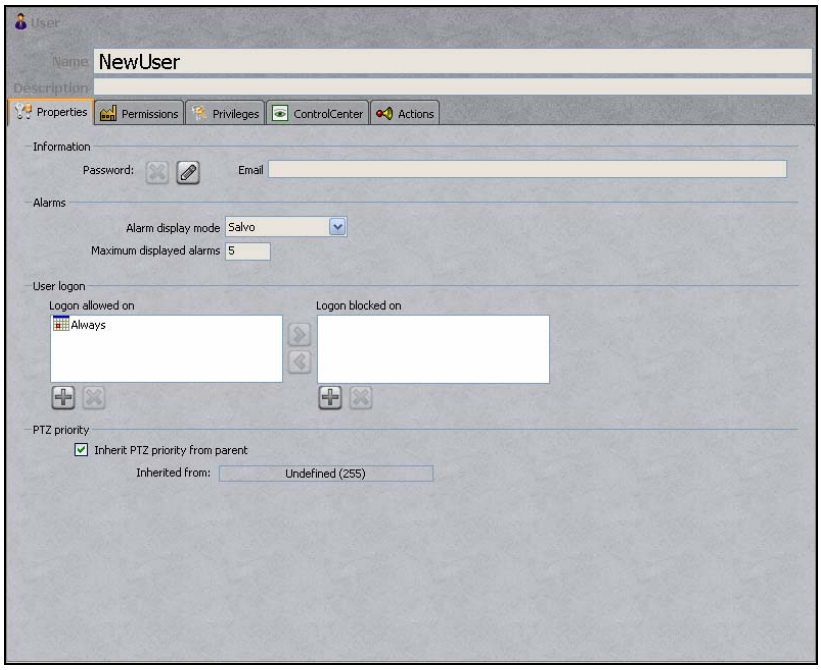

Figure 3-7 – The User Configuration Pane

2. Enter a name for the User in the ***Name*** field. Add a ***Description*** if you wish.
3. Click the pencil button in the ***Information*** section of ***Properties***. Enter a password for the user, retype it in the ***Confirm password*** field and click ***OK***.
4. Enter an e-mail address for the user, if you wish.
5. If applicable to your purchased system, choose an ***Alarm display mode*** from the drop-down menu and enter a number for ***Maximum displayed alarms***. Note that many users prefer to hold off on this step until after alarms have been configured.
6. In the ***User logon*** section use the ***+*** and arrow buttons to allow or block the user from logging on to the system during certain coverage periods.
7. To change the user's PTZ priority, uncheck ***Inherit PTZ priority from parent*** and enter the priority you would like to assign the user. Click ***Apply changes***.
8. Under the ***Permissions*** tab, checkmark the sites to which the user should have access.
9. Under the ***Privileges*** tab, click ***Allow*** or ***Deny*** for each privilege applicable to your system. Leave the non-applicable privileges undefined.

10. Click the ***ControlCenter*** tab, and the ***+*** button below the ***List of user layouts*** window. Highlight the layouts you would like to make available to the user and click ***OK***. Click ***Apply changes***.
11. Repeat steps 1-10 for each user you would like to create.

If you have not already done so, please use this opportunity to create a password for the default "Admin" user.

Creating User Groups

1. Right click anywhere in the System View Pane and choose ***Create > User Group***.

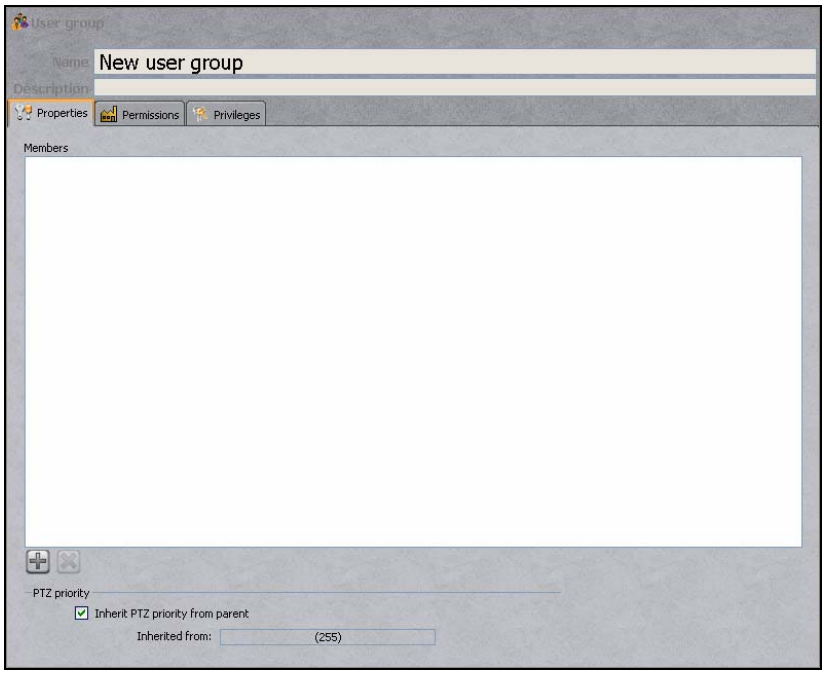

Figure 3-8 – The User Group Configuration Pane

2. Enter a name for the User Group in the ***Name*** field. Add a ***Description*** if you wish.
3. Click the ***+*** button in the ***Members*** section of ***Properties***. Highlight the users and user groups you would like to include in the group and click ***OK***.
4. To change the group's PTZ priority, uncheck ***Inherit PTZ priority from parent*** and enter the priority you would like to assign the user. Click ***Apply changes***.
5. Under the ***Permissions*** tab, checkmark the sites to which the user group should have access. Note that any permissions assigned to the group will automatically be inherited by all of its members.
6. Under the ***Privileges*** tab, click the ***Allow*** or ***Deny*** radio button for each privilege applicable to your system. Note that inheritance of privileges is "negative." A member may not have privileges that are denied to its user group. Click ***Apply changes***.
7. Repeat steps 1-6 for each user group you would like to create.

PTZ Controls

Latitude controls PTZ cameras using the RS232/RS422/RS485 ports of their encoders. If you have not yet hooked up your PTZ cameras to these ports, please consult your camera's user manual or DVTel Technical Support on how to do so.

Many entities in Latitude, including cameras and analog monitors, are assigned ID numbers so that they can be controlled by PTZ keyboards, as well as the numerical part of standard PC keyboards. Though these IDs are assigned sequentially when entities are first created in Latitude, they can be changed to make PTZ controls more convenient (this is particularly useful when switching to Latitude from an analog matrix system).

Configuring PTZ Cameras

1. In the ***Physical*** view of the System View Pane, browse for the camera you would like to configure. Instead of selecting it, however, click the RS232 or RS422/485 port associated with it (both the serial ports and the camera appear under the unit in the tree hierarchy). Choose the serial port to which the camera is connected.

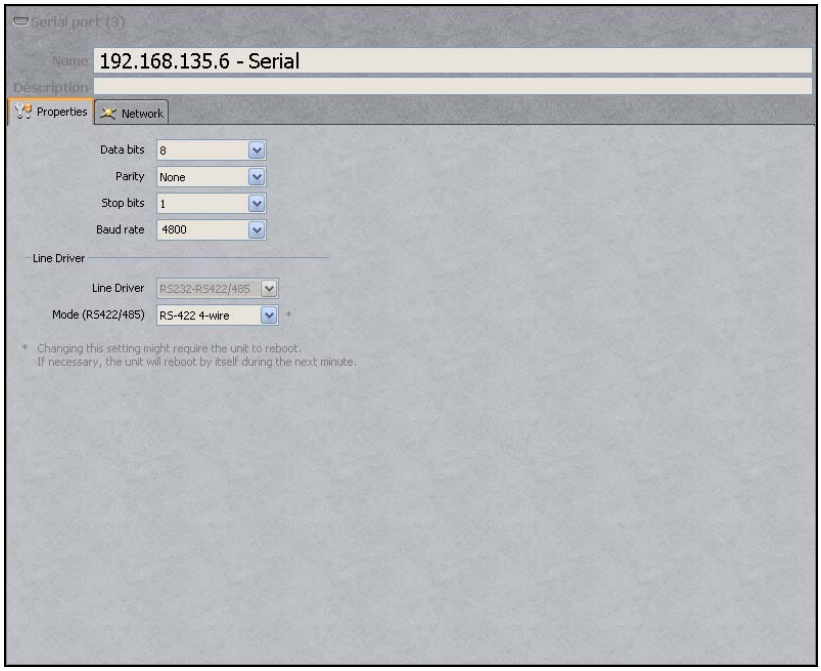

Figure 3-9 – The Serial Port Configuration Pane

2. From the ***Data bits***, ***Parity***, ***Stop bits***, ***Baud rate*** and ***Mode (RS422/485)*** drop-down menus, choose the appropriate options for the PTZ camera you are configuring (see your cameras user documentation for additional details). Click ***Apply changes***.
3. Right click anywhere in the System View Pane and choose ***Create > PTZ…*** A dialogue box similar to the following should appear:

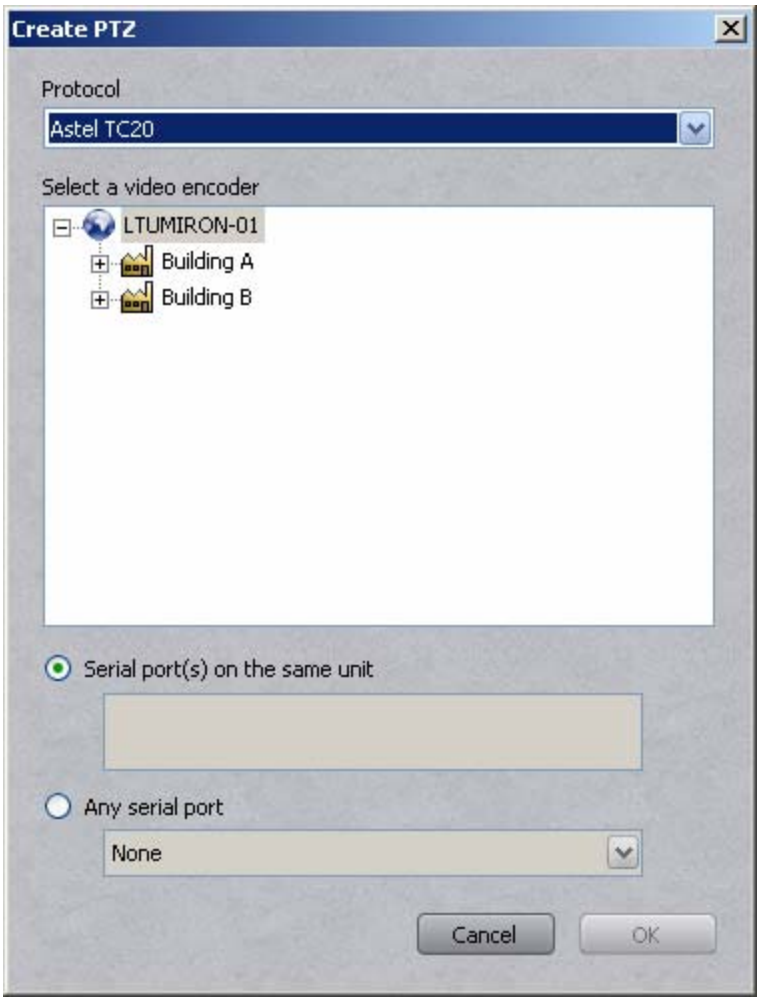

Figure 3-10 – The *Create PTZ* Dialogue Box

4. Choose your camera's protocol from the ***Protocol*** drop-down menu and browse for the camera in the ***Select video encoder*** window.
5. In the ***Serial port(s) on the same unit*** field, choose the serial port to which the camera is connected. Click ***OK***.
6. Click the ***Properties*** tab in the Configuration View Pane and enter your camera's ***PTZ number*** (if you are not sure what this number is, look it up using the camera's menu). Click ***Apply changes***.
7. Click the ***Test*** tab and then the ***Live video*** button. Use the green on-screen controls to test that the camera is responding to PTZ commands.
8. Repeat steps 1-8 for each PTZ camera you would like to configure.

Creating PTZ Presets and Patterns

Presets and patterns are created in the same ***Test*** section used in step 7 of the configuration procedure outlined in the previous section. The following image illustrates the Configuration Pane used in creating presets and patterns.

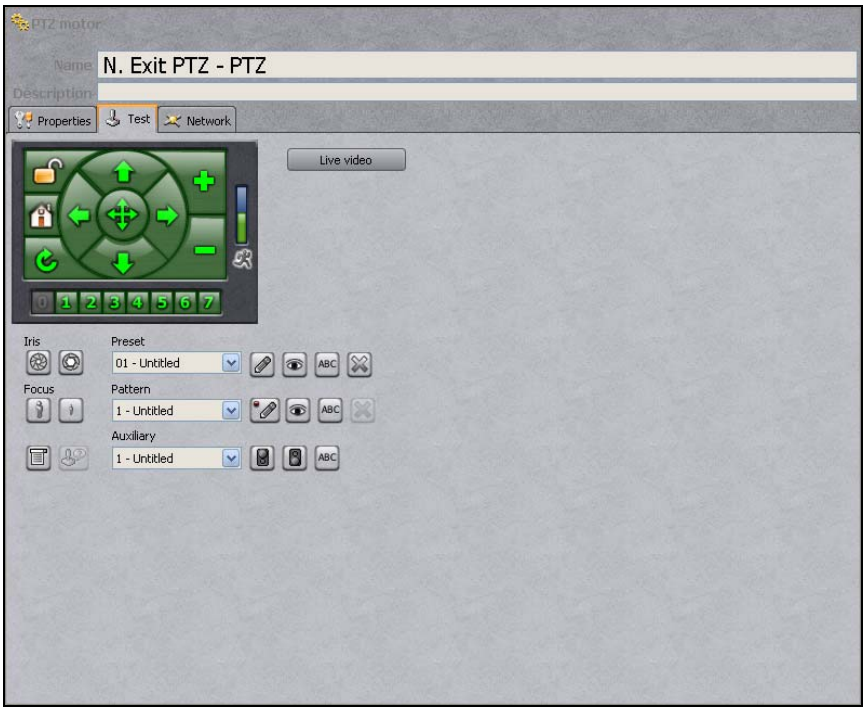

Figure 3-11 – The PTZ motor Configuration Pane

To reach this Configuration Pane, browse for the *PTZ motor* associated with your camera in either the ***Logical*** or **Physical** views of the System View Pane.

Creating Presets

1. Click the ***Live video*** button.
2. Choose the preset you would like to create from the ***Preset*** pull-down menu.
3. Use the on-screen controls to find the camera position/state you would like to associate with the preset.
4. Click any of the ***Iris***/***Focus*** buttons if you would like to override your camera's default setting when using the preset.
5. Click the pencil button to save the preset and the ABC button to name it.
6. Repeat steps 2-5 for each additional preset you would like to create.

Creating Patterns

1. Click the ***Live video*** button.
2. Choose the pattern you would like to create from the ***Pattern*** pull-down menu.
3. Click the pencil button to begin recording your pattern.
4. Use the green on-screen controls and the ***Iris***/***Focus*** buttons to create a pattern.
5. Click the pencil button again to stop recording the pattern. You can review it by clicking the eye button.
6. Use the ***ABC*** button to assign your pattern a name.
7. Repeat steps 2-6 for each additional preset you would like to create.

Assigning IDs to Cameras and Monitors

1. Click the globe icon in the ***Logical*** view of the System View Pane.
2. Click the ***Logical numbers*** tab in the Configuration View Pane. A screen similar to the following should appear:

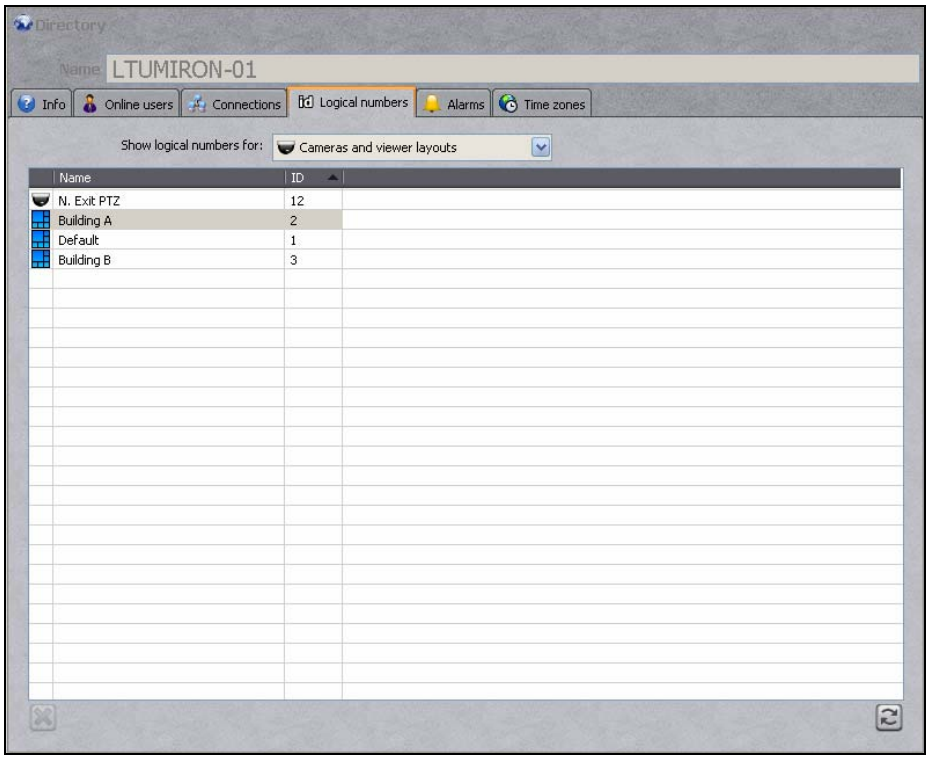

Figure 3-12 – The Directory Configuration Pane

3. Click the cells in the ***ID*** column to change the ID numbers of cameras and layouts. Do not change the IDs associated with PTZ cameras unless you make the same changes to the cameras' configurations (using their menus).
4. Use the ***Show logical numbers for*** pull-down menu to view and change ID numbers for other entities, such as camera sequences and analog monitors, as applicable to your needs.

Advanced Topics

This section covers some advanced Latitude NVMS installation and configuration topics.

Multiple Server Systems

Most small to medium-sized Latitude NVMS systems require only one server. For systems that have over seventy cameras, however, as well as systems in which fail-over capabilities are required, multiple servers are needed. When a base Latitude system is purchased, it comes with a license for a single server that includes the main Directory, a Media Archiver (capable of supporting up to seventy cameras), a Virtual Matrix, and a few other services. All these components may be installed on additional machines as well, *if the system's license supports it*. A **Directory** service, however, may only run on one Latitude computer at any given time. Installing a second Directory requires the installation of a **Fail-Over Directory (FOD)**, which is responsible for handing over control from the main Directory to the secondary Directory in case of failure. If more than one (main) Latitude Directory is installed, a FOD must be installed on each machine in which a Directory is present, *including the primary server*.

Installing an Additional Latitude Server

1. Insert the *Latitude NVMS CD* into the CD-ROM drive of your server. If the installer is not launched automatically, explore the CD and double-click the **`setup`** file.
2. Click ***Install Latitude Server***. Follow the on-screen prompts to accept the software license agreement and default destination folder for the server applications.
3. For ***Setup Type***, choose ***Custom*** and click ***Next***. In the following screen, checkmark only the components you would like to install. Below are some common examples:
    - To install a **Media Archiver Server** (MAS), checkmark ***Media Archiver***. This applies whether or not the Archiver is to be used for Fail-Over or Redundancy.
    - To install a **Fail-Over Directory**, checkmark ***Directory***, ***Fail-Over System*** (Fail-Over Directory/FOD) and ***Internet Video Transmission Server*** (IVS).
    - To install a **Media Archiver Server** and a **FOD**, checkmark ***Media Archiver***, ***Directory***, ***Fail-Over System*** and ***Internet Video Transmission Server***.
    - In addition, it is recommended that you checkmark ***Video Unit Search*** (under ***Tools***) and ***Online Help***.

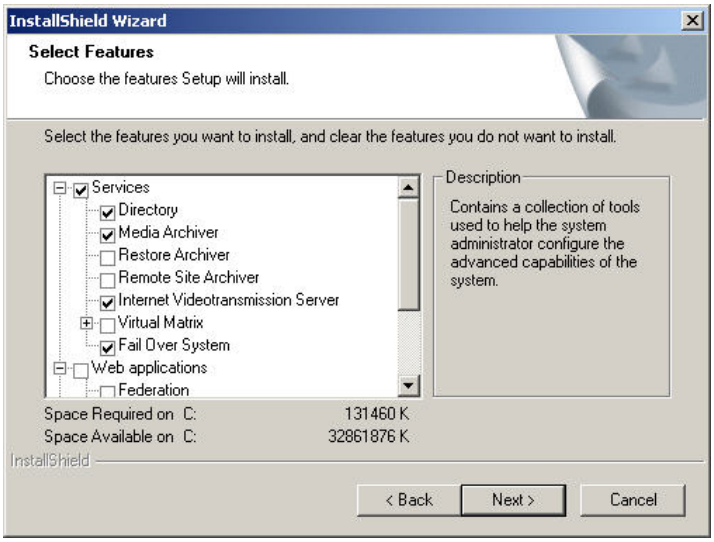
InstallShield Wizard
Select Features
Choose the features Setup will install.
Select the features you want to install, and clear the features you do not want to install.
Services
Directory
Media Archiver
Restore Archiver
Remote Site Archiver
Internet Videotransmission Server
Virtual Matrix
Fail Over System
Web applications
Federation
Description
Contains a collection of tools used to help the system administrator configure the advanced capabilities of the system.
Space Required on C: 131460 K
Space Available on C: 32861876 K
InstallShield
< Back
Next >
Cancel

Figure 4-1 – Custom Installation Component Selection

4. In the case of a Media Archiver installation, you will be prompted to specify a database. Choose ***Install a new database server*** and click ***Next***.
5. When the Resource Administration Tool (RAT) launches, copy the Validation Key and use it to obtain and import your License Key from DVTel's licenses website, using the procedure outlined in the Basic Installation chapter of this manual.
6. Click ***Apply Changes***, exit the application, and select ***Yes*** when prompted whether you would like to restart the computer.

Configuring a Media Archiver

1. Launch the RAT on the MAS and click ***Archiver*** in the ***Resources*** tree.

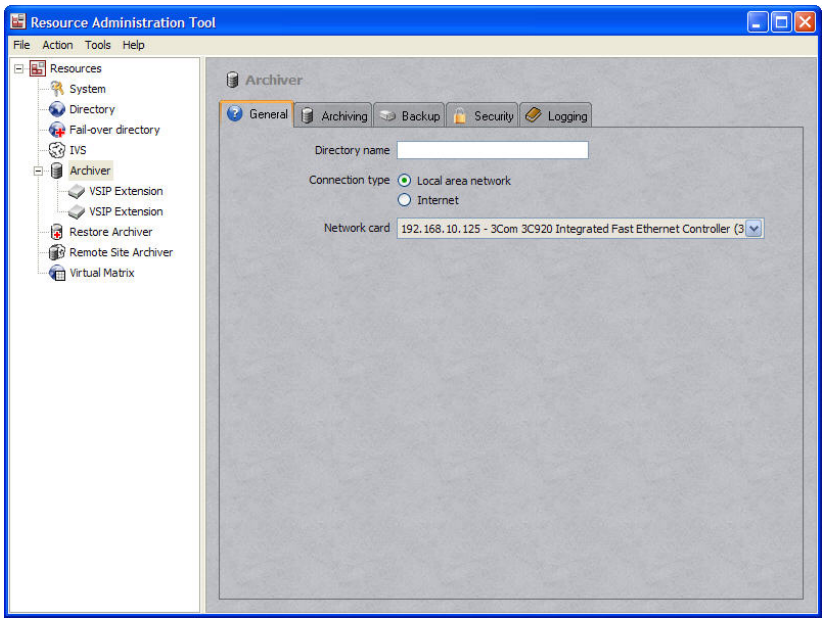

Figure 4-2 – Archiver Configuration in the RAT

2. In the ***Directory*** field, enter the computer name or IP address of your main Directory server (an IP address must be used if connecting to the Directory via the Internet). Click the radio button corresponding to your ***Connection type*** and choose a ***Network card*** from the drop-down menu.
3. Define the MAS's archiving drives using the procedure outlined in the Basic Installation chapter.
4. Expand the ***Archiver*** icon in the ***Resources*** tree and click ***VSIP Extension***. Enter the VSIP port of the encoders you would like the MAS to archive. To add additional extensions to the Archiver, right click ***Archiver*** and choose ***Create > VSIP Extension***. This is especially useful when the MAS is acting as a Fail-Over Media Archiver (FOMA).
5. Click ***Apply changes*** and exit the application.

Configuring Archiver Fail-Over and Redundancy

Fail-Over Media Archivers (FOMAs) and Redundant Media Archivers (RMAs) work by "listening" to the same VSIP port as the other Media Archivers. In both cases, the fail-over capability becomes available as soon as the appropriate extensions are added to the Media Archivers. The only additional configurations required are to define to the order of failure for each encoder/decoder, and, in the case of Redundancy, to specify the cameras to be recorded in multiple locations. If the VSIP port of a camera set to record redundantly is associated with more than two Media Archivers, its video stream will be recorded on all of the Archivers. *DVTel recommends that you carefully plan your VSIP port assignments ahead of time.*

1. Launch AdminCenter and browse for the unit you would like to configure in the System View Pane's Physical View. It should be listed under one of the Media Archivers.

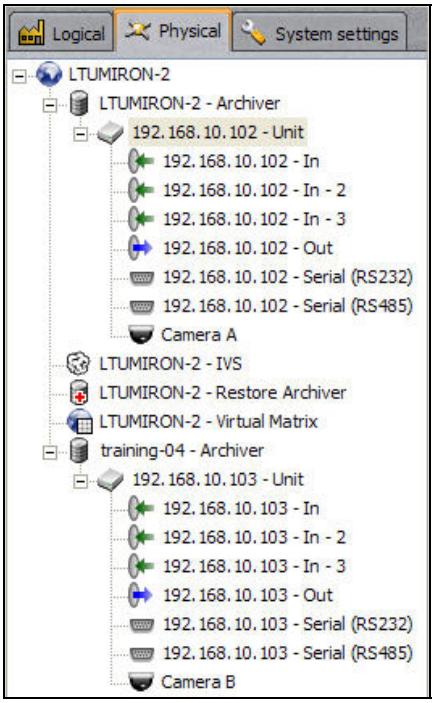

Figure 4-3 – The System View Pane, Physical View

2. Click the ***Fail-over archivers*** tab in the Configuration Pane. If any desired Archiver is missing, check that the unit's VSIP extension has been associated with it. You will need to use the RAT on the Media Archiver server.

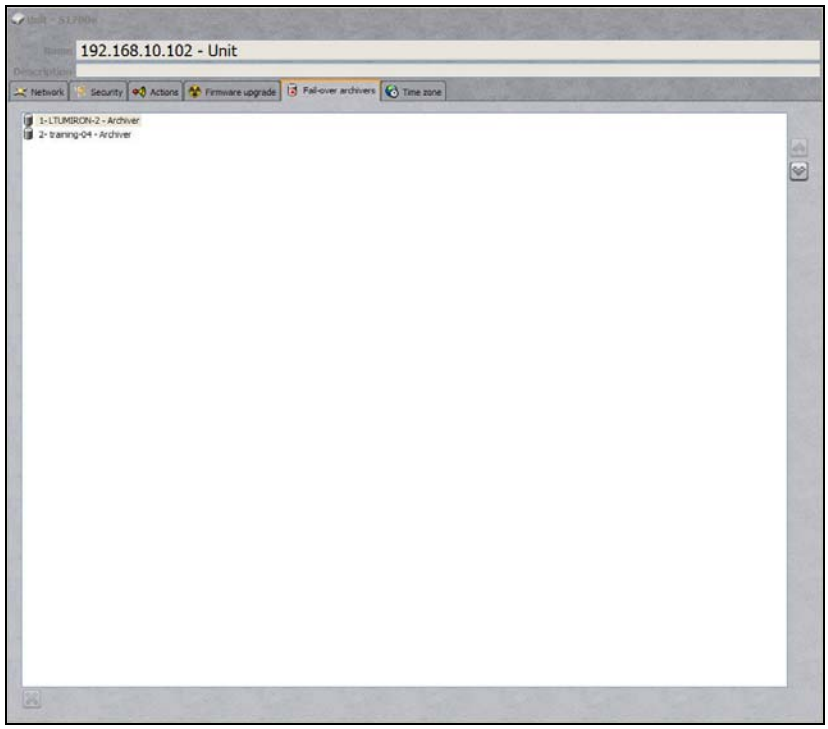

Figure 4-4 – The Unit Configuration Pane, Fail-Over Tab

3. Use the up and down buttons to change the order of control by the Media Archivers.
4. If any of the cameras connected to the unit should be recorded redundantly, make sure the ***Redundant Archiving*** box is checked in each of their Configuration Panes.

Configuring Directory Fail-Over

Warning: Fail-Over Directory will not function correctly unless time is synchronized throughout the Latitude system. If you do not have a domain controller, make sure to configure a time-server and link your servers and clients to it before proceeding with the procedure below. See Appendix A for instructions on setting up a Windows Time Server.

1. Make sure that all Latitude servers are connected to the main directory by checking that they appear in the Physical view of the System View Pane (in AdminCenter).
2. In the ***Tools*** menu, choose ***Configure Directory Fail-Over***.

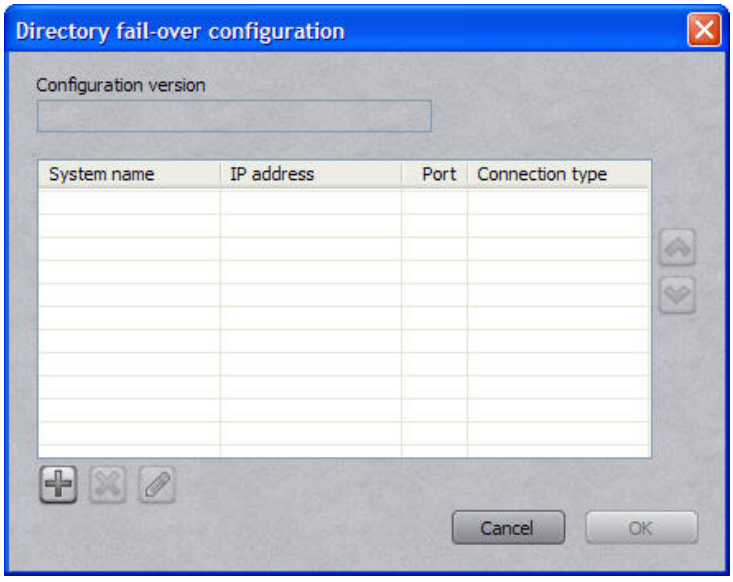

Figure 4-5 – The FOD Configuration Dialogue Box

3. Click the ***+*** button to add an additional Directory. In the ***System*** dialogue box, enter a ***System name*** for your FOD (e.g. *Remote-Site FOD*) as well as its ***IP address***. If your ***Connection type*** is ***Local Area Network***, you may use the computer's name instead. Otherwise, click the ***Internet*** radio button.
4. Click OK. *Repeat the previous step for each of your Directories, including the primary one.*
5. Use the Up and Down arrows to specify the order of Directories that the system should use in case of Fail-Over. The main Directory should be first in the list. If it is not, the Directory that is will become the main Directory as soon as the configuration process is completed.
6. Click ***OK***. Within about 20-30 seconds, the Fail-Over Directories should appear in the Physical view of the System View Pane.

Events, Actions and Alarm Management

One of the most powerful new features in Latitude NVMS is Alarm Management, which is often used with conjunction with events and actions. Though alarms are not a new concept to the 3.0 version of the software, their meaning has been considerably expanded from the previous version, NVRS 2.5. An alarm is no longer viewed by the system as an event or action, but is its own entity type, associated with users, cameras, priorities and customizable behaviors.

Alarm Management adds a new dimension of *proactive* functionality to the system, allowing administrators to direct and monitor users' responses to system events. Every aspect of alarms in Latitude is highly customizable, including the mode (Salvo or Block) in which they are displayed in each user's workstation and on analog monitors (for more information about the properties and differences between Salvo and Block modes, see the *Latitude User Manual*). Alarm Management's power can be further enhanced through the use of macros, which allow for integration with external systems such as Access Control.

Events and actions in Latitude NVMS remain mostly unchanged from the previous version of the system. Events are system occurrences, such as the detection of motion or loss of signal from a camera, while actions are responses to events, such as starting to record video, sending an e-mail, sounding an audio alert, or triggering an alarm (in the latter case, the act of triggering an alarm is an action, but the alarm itself is not, since alarms are neither events nor actions). The only type of "modification" that can be performed on events and action is to assign them aliases and PTZ/CCTV values, via the user-defined events and user-defined actions interface in AdminCenter.

Creating User-Defined Events and Actions

1. Right click anywhere in the System View Pane and choose ***Create > User-defined Event*** or ***Create > User-defined Action***.

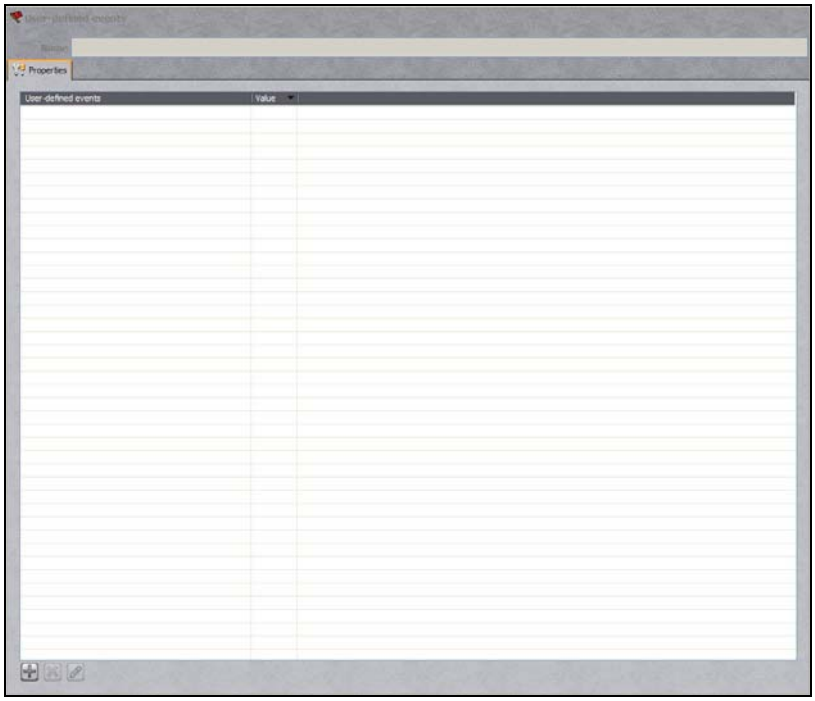

Figure 4-6 – The User-defined Events Configuration Pane

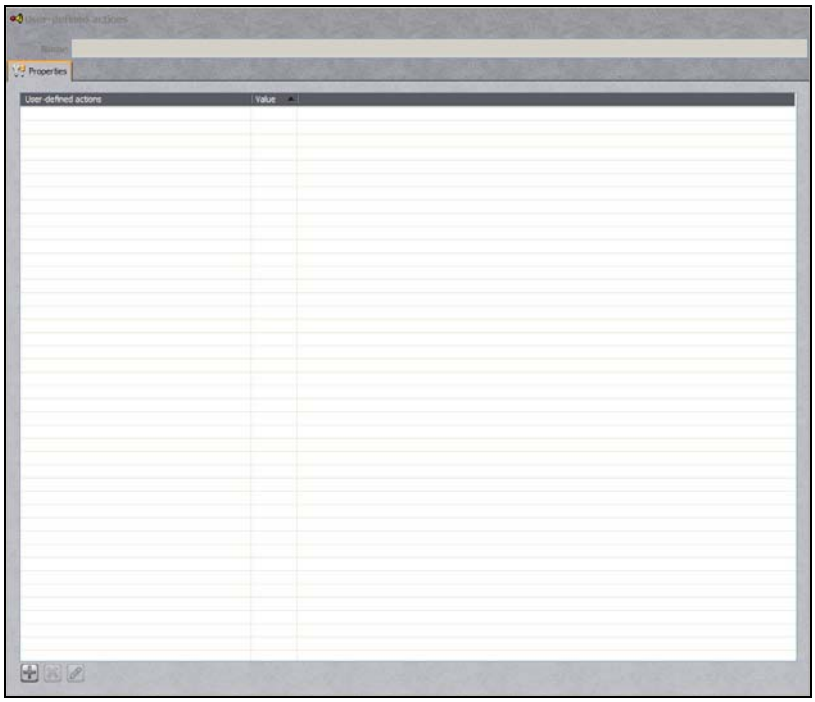

Figure 4-7 – The user-defined Actions Configuration Pane

2. To create an event, click the **+** button at the bottom of the Pane. In the ***New event*** or ***New action*** dialogue box, enter a ***Description*** and a numerical ***Value*** and click ***OK*** (a value will be assigned automatically if the Value field is left blank).
3. Repeat the previous step for each additional user-defined event or action you would like to create.

Assigning Actions to Events

Certain Latitude entities, such as cameras, serial ports, users and alarms, generate system events to which automatic actions can be assigned. Actions can be configured for an entity only as a response to events which are relevant to it. For example, a camera can trigger an action based on a ***Motion on*** event, but it cannot trigger one due to ***User logon***.

The steps below describe how to assign an action to a camera. You can assign actions to other types of entities using the same procedure.

1. In the System View Pane, click the entity you would like to configure and the ***Actions*** tab in the Configuration Pane.

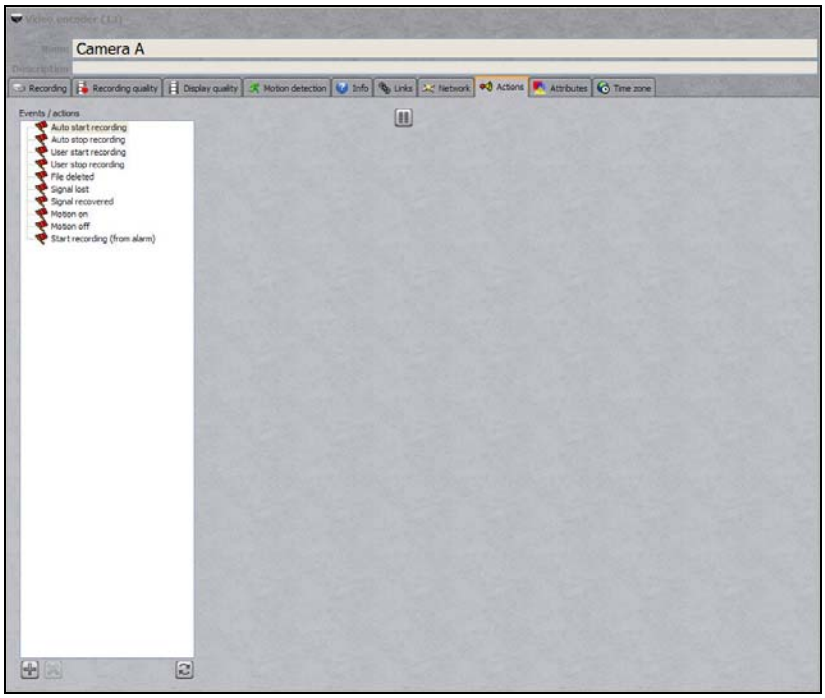

Figure 4-8 – The Camera Configuration Pane's Actions Tab

2. Right click the desired event from the ***Events/Actions*** window and choose ***Create a new action*** and one of the actions from the menu.
3. Choose the ***Coverage*** during which the event/action relationship should be in effect and checkmark the entities that should perform the action.
4. Enter a description if you like and click ***Apply changes***.
5. Repeat steps 2-4 for each action you would like to assign your camera. Multiple actions can be associated with each event.

Creating Camera and Monitor Groups

Camera and monitor groups are new Latitude entities used for defining alarms. A camera group is a set of cameras (e.g. all cameras showing fire exits); a monitor group is a set of analog monitors associated with an alarm display mode (Salvo or Block). Adding a monitor to a monitor group is the equivalent of arming a tile in a ControlCenter layout. For this reason, alarms cannot be displayed in monitors if no alarms groups have been configured.

To create a camera or monitor group, follow these steps:

1. Right click anywhere in the System View Pane and choose ***Create > Camera Group*** or ***Create > Monitor Group*** (in the case of a monitor group, highlight the virtual matrix in the ***Select the virtual matrix*** dialogue box and click ***OK***).

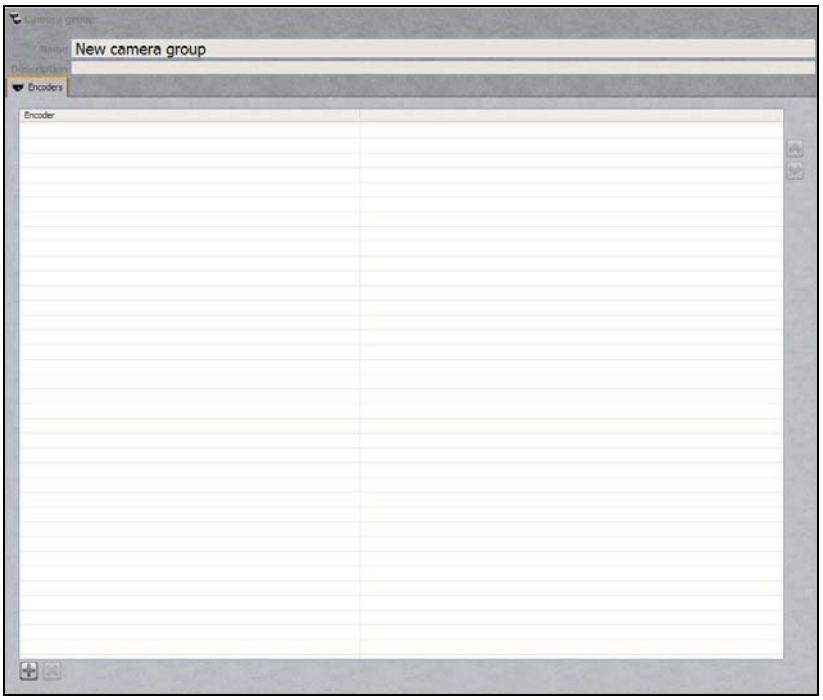

Figure 4-9 – The Camera Group Configuration Pane

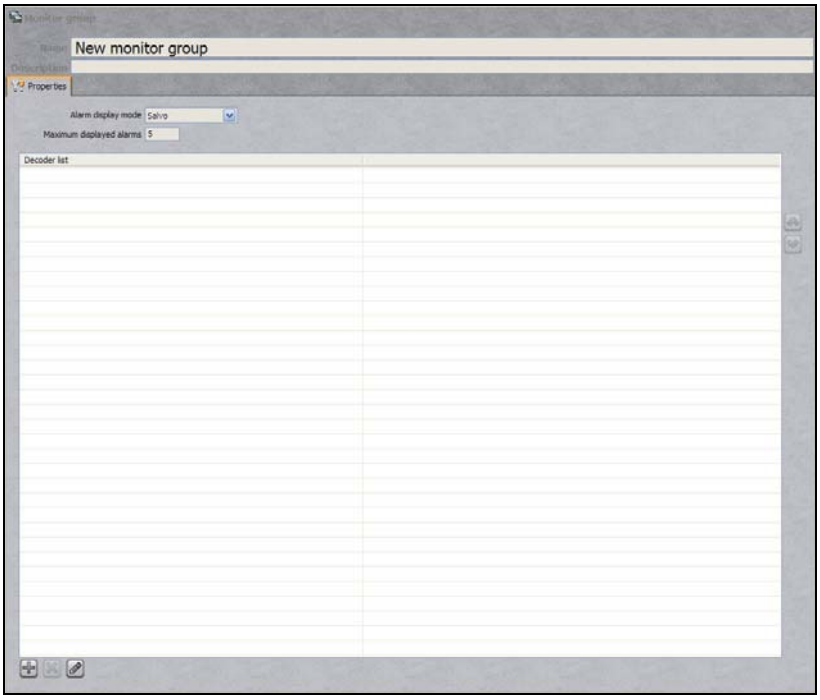

Figure 4-10 – The Monitor Group Configuration Pane

2. Enter a name for the camera/monitor group in the ***Name*** field. Add a ***Description*** if you wish.

3. In the case of a monitor group, choose an ***Alarm display mode*** and enter the ***Maximum displayed alarms***. This number specifies the maximum number of alarms that the monitor group will display simultaneously.
4. Use the **+** button at the bottom of the screen to add a camera or monitor to the group. Repeat this step as necessary.
5. Repeat steps 1-4 to create additional camera and monitor groups.

Creating Alarms

1. Right click anywhere in the System View Pane and choose ***Create > Alarm***.

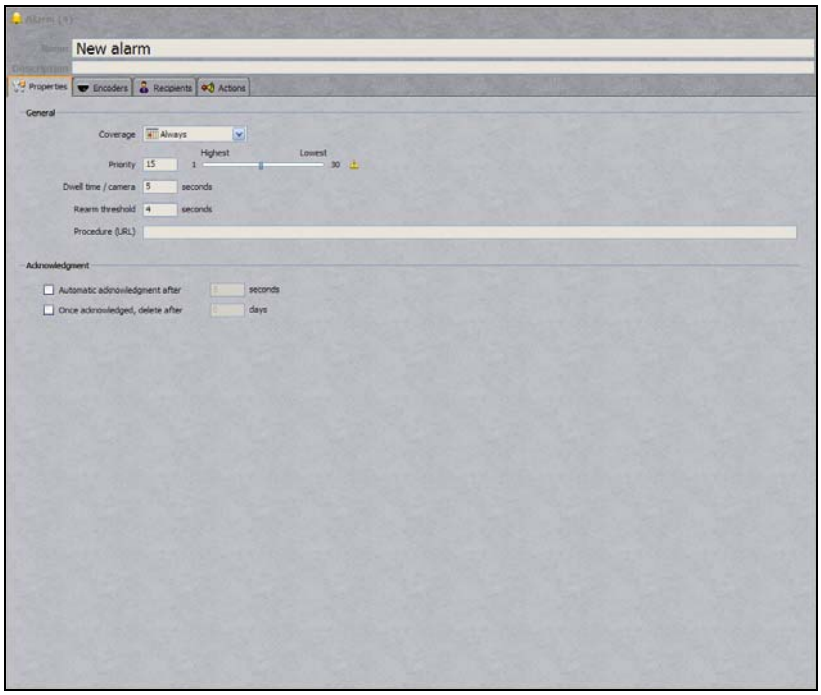

Figure 4-11 – The Alarm Configuration Pane

2. Enter a name for the alarm in the ***Name*** field. Add a ***Description*** if you wish.
3. Enter values for the following parameters:
    - ***Coverage***: choose a time range during which the alarm can be activated from the drop-down menu. If the existing coverages are all inappropriate, create a new one.
    - ***Priority***: enter a priority between 1 (highest) and 30 (lowest) for the alarm. This priority will determine where and how often the alarm will be displayed.
    - ***Dwell time/Camera***: this value determines how long each camera associated with the alarm is displayed, depending on the display mode and the number of armed tiles in ControlCenter (which varies by user). In both Salvo and Block modes, dwell time/camera also determines how much time passes until an alarm is displayed (or redisplayed) when multiple alarms are active.
    - ***Rearm threshold***: enter the number of seconds for which the alarm should not be able to reactivate. The higher the parameter, the less likely it is that duplicate

alarms will be generated by the same event; the lower it is, the less likely it is that multiple events will trigger only one alarm.

- ***Procedure (URL)***: use this field to enter a URL address for any html procedure document you would like to associate with the alarm. The procedure can then be displayed in ControlCenter whenever the alarm is active.

4. If you would like Latitude to automatically acknowledge instance the alarm if the user fails to do so, checkmark the ***Automatic acknowledgement*** box and enter the number of seconds the system should wait before acknowledging. To have alarms automatically deleted after they are acknowledged, checkmark the box labeled ***Once acknowledged, delete after*** and enter the number of days alarm instances should be saved.
5. Click ***Apply changes*** and switch to the ***Encoders*** tab.
6. Use the **+** button at the bottom of the screen to associate a camera or a camera group with the alarm. In the ***Add encoder*** dialogue box, choose a camera/camera group as well as a display option (playback, live video or still frame), and a pre-trigger time (the number of seconds from *before* the alarm was activated in which video is shown).
7. Repeat the previous step for each additional camera or camera group you would like to associate with the alarm. Click ***Apply changes***.
8. Switch to the ***Recipients*** tab and choose a ***Broadcast option***:
   - ***All at once*** causes the alarm to be sent to all recipients as soon as it is activated.
   - ***Sequential*** causes the alarm to be sent to recipients by order of their priority. The ***Time out*** parameter is used to control the number of seconds between succeeding notifications.
9. Use the **+** button at the bottom of the screen to add a user, users group or monitor groups to the alarm's recipients. You must assign a priority to each recipient.
10. Repeat the previous step for each additional recipient you would like to add. Multiple recipients may have the same priority.

Setting Up Users' Alarm Display Mode

1. In the System View Pane, click on the user whose alarm display mode you would like to configure.

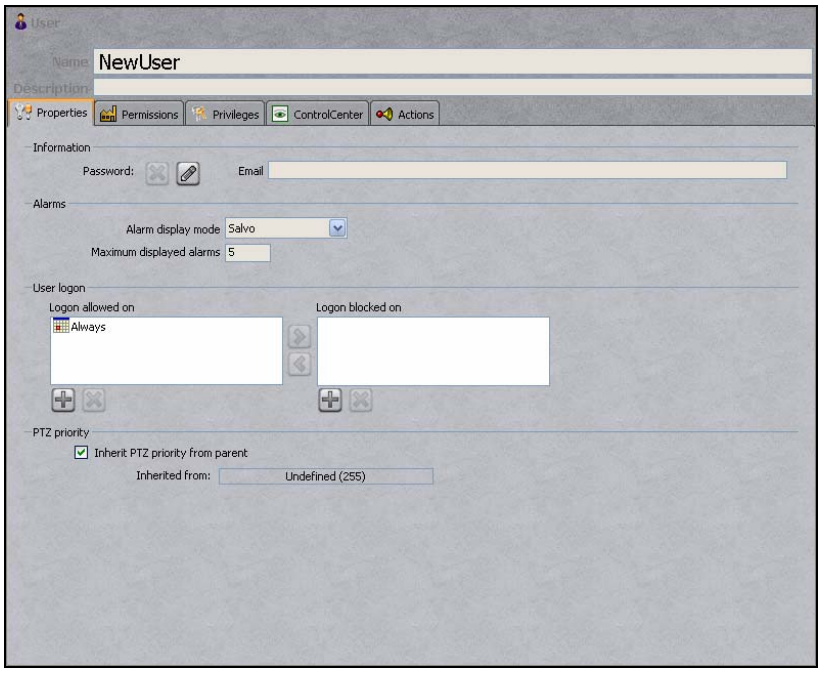

Figure 4-12 – The User Configuration Pane

2. Choose either Salvo or Block from the Alarm display mode drop-down menu and enter the maximum number of alarms to be displayed simultaneously.
3. Repeat the previous steps for each user who may receive alarms.

Motion Detection

Motion detection in Latitude NVMS had been redesigned to support a more sophisticated range of options, based on multiple detection zones and time-based detection schemes. Up to six detection zones can now be configured, allowing for, among other things, detection based on directional motion. When used with alarms, different types of motion can trigger different types of alarms for the same camera.

Configuring Motion Detection

1. In the System View Pane, click on the camera for which you would like to configure a motion detection scheme and then click the ***Motion detection*** tab.

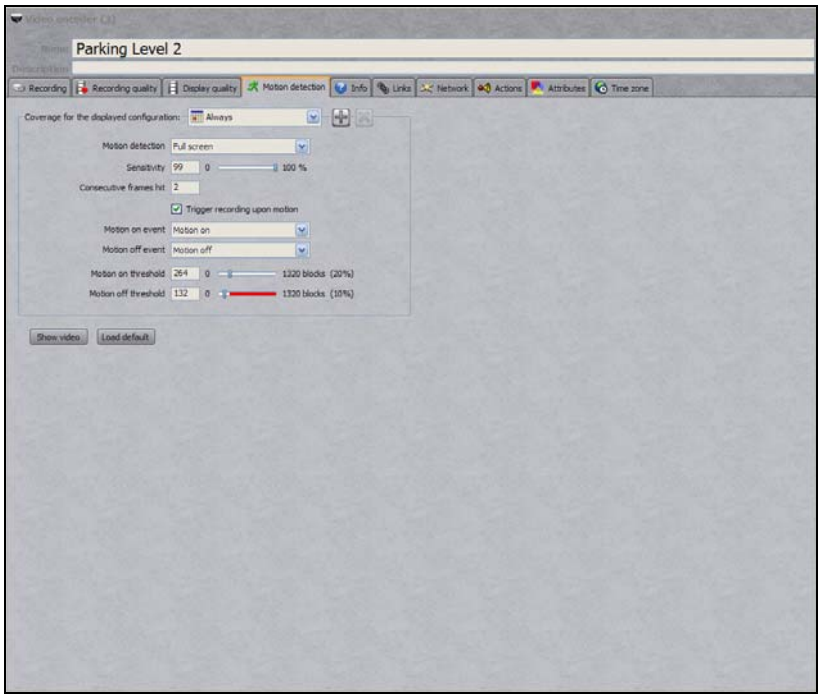

Figure 4-13 – The Camera Configuration Pane, Motion Detection Tab

2. If you would like to configure motion detection for a coverage other than the default one, click the + button and choose a ***Coverage*** from the ***Add configuration*** dialogue box. To copy currently shown configuration's settings to the new one, checkmark the box labeled ***Copy the displayed configuration***. Click ***OK***.
3. From the ***Motion detection*** drop-down menu, choose the type of detection that you would like to use. Under the "unit" option, available with some encoders, the encoder, rather than the Media Archiver, performs motion detection.
    - When recording is based on motion detection, the "unit" option can reduce bandwidth usage, since the encoder sends video over the network only when sufficient motion is present. It also reduces strain on the CPU of the machine running the Media Archiver, as it does not need to analyze the video.
    - The downsides of this option is that it does not allow for pre-event recording and supports only one, rather than six, detection zones.
4. Enter the ***Sensitivity*** you would like to use. When the sensitivity is set to 100%, the slightest variation in a block from one frame to the next will count as motion *for that block*. The parameter should be determined based on how prone your equipment is to generate noise (which is a function of settings, bandwidth, etc).
5. In the ***Consecutive frames hit*** field, enter the minimum number of frames in which motion must be detected in order for the system to view it as real motion (rather than noise). Setting this parameter to a value greater than 1 reduces the risk of false positives.
6. If you chose one of the ***Detection zone*** options in the ***Motion detection*** field, refer to the next section for instruction on creating detection zones (return to the next step once you have completed defining your detection zones).
7. Recording is triggered by default when sufficient motion is detected. To prevent this, uncheck the ***Trigger recording upon motion*** box.

8. Also by default, detection that motion is present triggers a ***Motion on*** event, while detection that motion has stopped triggers a ***Motion off*** event. These triggered events may be changed to either ***No event*** or any user-defined event through the ***Motion on event*** and ***Motion off event*** drop-down menus. *In most cases, changing the default motion events is not recommended.*
9. Enter a ***Motion on threshold*** and ***Motion off threshold*** (as a percentage of blocks in the detection zone). The latter value must be lower than the former.
10. Click ***Apply changes***.
11. If more than one detection zone has been created for the configuration, repeat steps 7-10 until the parameters for all zones have been specified.
12. To configurations motion detection for an additional coverage (with the same camera), repeat steps 2-11.
13. To configure motion detection for an additional camera, repeat steps 1-12.

Creating Detection Zones

1. Click the ***Show video*** button. The Motion detection window should appear. The green and red squares represent blocks in which there is motion. The blocks are indicated in green when the total motion in the frame is below the ***Motion on*** threshold, and in red when it is above.

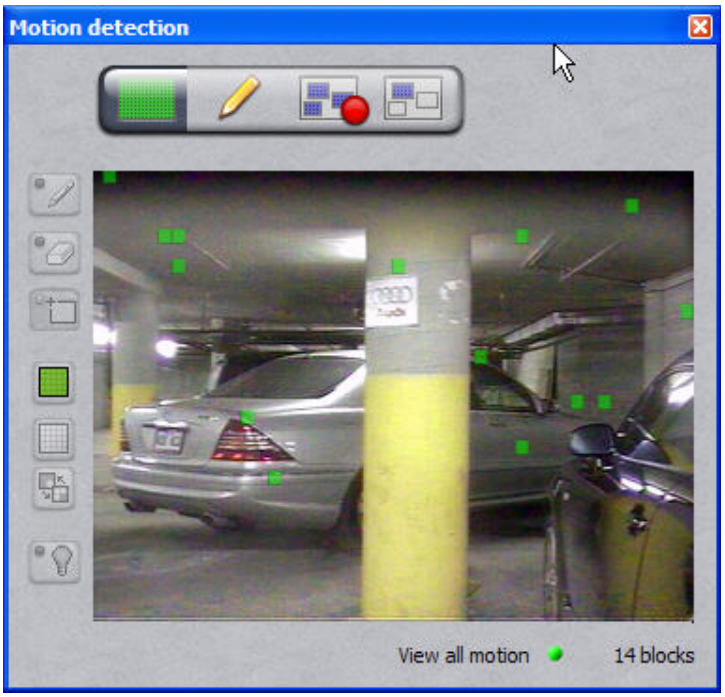

Figure 4-14 – The Motion Detection Window

2. Click the pencil button at the top of the window to enter editing mode. Use the buttons on the left to define your motion zone.
    - Use the top three buttons to draw (and erase) your detection zone.
    - The middle set of buttons allows for filling, clearing and inverting the detection zones. This is useful when motion in all but a small part is meaningful.

- The lowest button puts Latitude in learning mode. The system analyzes motion in the frame, determines what the typical motion is, and modifies the detection zone accordingly. *Please consult DVTel Technical Support if you intend to use this feature.*

3. Click the **+** button to create additional zones, and repeat the previous step for each one. You will need to give each zone a name and click ***Yes*** when prompted to apply changes.

Database Reporting

Latitude NVMS allows users with the necessary license to access the system's database and obtain Crystal-format reports from it. The feature comes with several built-in reports that can be modified by the users. Many modifications, however, as well as the ability to create new reports from scratch, require the Crystal Reports software, which does not come with Latitude, but can be easily purchased in most computer stores.

Installing the Report Viewer

Note: If Latitude client applications are already installed on the computer, you will not be able to install the Report Viewer. You must first uninstall the programs, and then reinstall them along with the Report Viewer.

1. Insert the *Latitude NVMS CD* into the CD-ROM drive of your client PC. If the installer is not launched automatically, explore the CD and double-click the `setup` file.
2. Click ***Install Latitude Client***. Follow the on-screen prompts to accept the software license agreement and default destination folder for the server applications.
3. Under ***Setup Type***, choose ***Custom*** and click ***Next***. Checkmark ***Report Viewer*** and any other applications you would like to install. Click ***Next***.

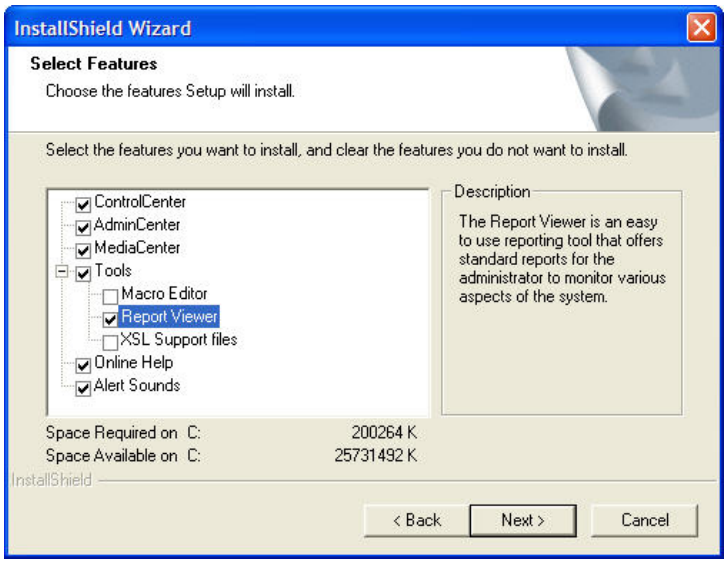
InstallShield Wizard
Select Features
Choose the features Setup will install.
Select the features you want to install, and clear the features you do not want to install.
ControlCenter
AdminCenter
MediaCenter
Tools
Macro Editor
Report Viewer
XSL Support files
Online Help
Alert Sounds
Description
The Report Viewer is an easy to use reporting tool that offers standard reports for the administrator to monitor various aspects of the system.
Space Required on C: 200264 K
Space Available on C: 25731492 K
InstallShield
< Back
Next >
Cancel

Figure 4-15 – Client Installation (Custom)

4. Enter the location of your Latitude database (typically ***`machine_name\Omnicast`***) and click ***Next***.
5. Click ***Finish*** once the installation is completed and reboot your computer.

Configuring Database Reporting

1. Launch the Resource Administration Tool on the Latitude Directory server.
2. Click ***Directory*** in the ***Resources*** tree and switch to the ***Logging*** tab.

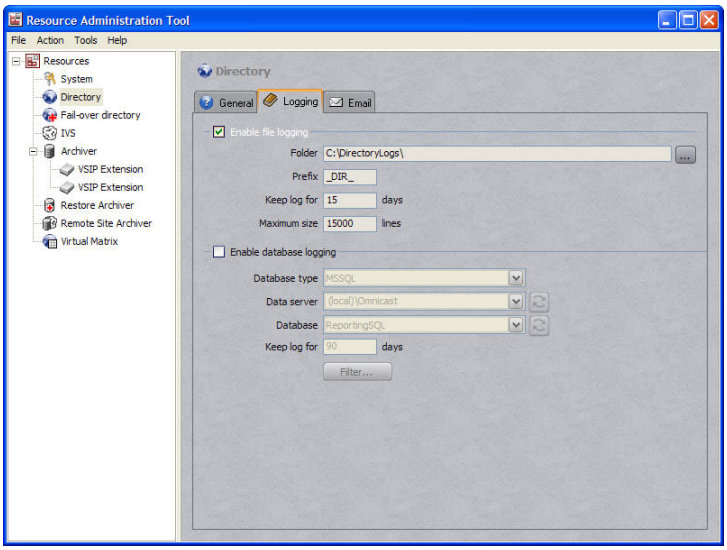

Figure 4-16 – Configuring Directory Logging in the RAT

3. Checkmark ***Enable database logging***. Choose ***(local)\Omnicast*** as your ***Data server*** and ***ReportingSQL*** as the ***Database***.
4. Enter the number of days the log should be kept.
5. Click ***Filter*** and checkmark the activities the database should track.
6. Click ***Apply changes*** and choose ***Yes*** when asked if you would like to restart the Directory Service.

Appendix A – Time Synchronization

To synchronize time across your Latitude system, follow the procedures described below. You will need to choose one computer to act as a time server. This machine need not run any Latitude application.

Configuring Time-Client Computers

1. Open up a command prompt by going to ***Start > Run***, typing **`cmd`** in the ***Open*** field and clicking ***OK***.
2. In the command prompt, type in **`net stop w32time`** to stop the computer's time synchronization service. Press ***Enter***.
3. Type in the command **`net time /setsntp:`*`TimeServerName`***, where ***`TimeServerName`*** is the name of the computer that will be used as the time-server. Press ***Enter***.
4. Restart Windows' time synchronization service by typing in **`net start w32time`** and pressing ***Enter***.
5. Repeat steps 1-4 for each computer you would like to synchronize with the time server.

Configuring a Time-Server Computer

1. Open up a command prompt by going to ***Start > Run***, typing **`cmd`** in the ***Open*** field and clicking ***OK***.
2. In the command prompt, type in **`net stop w32time`** to stop the computer's time synchronization service. Press ***Enter***.
3. Go to ***Start > Programs > Accessories > Notepad***. Enter the following text into a blank Notepad document:

```
Windows Registry Editor Version 5.00

[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Services\W32Time\Parameters]
'LocalNTP'=dword:00000001
'ReliableTimeSource'=dword:00000001
```

4. Save the document as **`C:\TimeServer.reg`**. **The file must reside directly in the "C" drive.**
5. Back in the command prompt, type in **`regedit /s TimeServer.reg`** and press ***Enter***.
6. Restart Windows' time synchronization service by typing in **`net start w32time`** and pressing ***Enter***.

Appendix B – IIS Installation

In order to be able to access Latitude NVMS over the web, you will need to install Internet Information Services (IIS) on your main Directory server.

Installing IIS

1. Go to ***Start > Settings > Control Panel*** and double click ***Add/Remove Programs***.
2. Click ***Add/Remove Windows Components***.
3. Checkmark ***Internet Information Services (IIS)*** (If there is already a check by ***IIS***, it means the component is already installed). Click the ***Details*** button.
4. Checkmark the ***Common Files***, ***Internet Information Services Snap-In*** and ***World Wide Web Server*** components. Click ***OK***.
5. Back in the ***Windows Components Wizard*** dialogue box, click ***Next***.
6. When prompted, insert your operating system CD (the necessary files can also be downloaded from Microsoft's Support website). A dialogue box will open up. You will need to copy files from the ***I386*** directory. If this location is not already listed under ***Copy files from***, click the ***Browse*** button and find it manually. Then click ***OK***.
7. Click ***Finish*** and restart you computer.